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ABSTRACT

This resource document presents research on first and second language acquisition, home environments, and other cultural factors that affect the cognitive or affective development of bilingual minority-group children, such as child-rearing practices, styles of learning and coping, and values and attitudes. Sections are devoted to the nature of language, linguistic diversity, child language acquisition, becoming bilingual, profiles of bilingual children, and implications for early-childhood program development. Included are appendixes which provide more detailed information on the specific ethnic groups and an extensive bibliography. (Author/SK)

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BILINGUAL CHILDREN

A Resource Document Prepared for
Child Development Associate Consortium, Inc.
by

Muriel Saville-Troike
August, 1973

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BILINGUAL CHILDREN

Muriel Saville-Troike

This resource document surveys a wide range of research on first and second language acquisition, home environments, and other cultural factors that might affect the cognitive or affective development of bilingual minority-group children, such as child-rearing practices, styles of learning and coping, values, and attitudes. Sections are devoted to the Nature of Language, Linguistic Diversity, Child Language Acquisition, Becoming Bilingual, Profiles of Bilingual Children (Mexican-American, Puerto Rican, and Native American), and Implications for Early Childhood Program Development, with appendices providing more detailed information on the specific ethnic groups. An extensive bibliography is included.

Two of the most salient facts emerging from the study are (1) that most of the existing educational research in this area is vitiated by being based on stereotypic assumptions regarding the groups studied or by failing to distinguish such factors as ethnicity, economic status, and residence pattern; and (2) that many of the educational problems of bilingual children are a product of the tendency on the part of adults to evaluate the children in terms of the negative stereotypes and expectations of the majority culture. These findings have obvious relevance for future research, as well as for the development of training and credentialing programs for educational personnel.

PREFACE

The Center for Applied Linguistics views the program of the Child Development Consortium, Inc. to develop certification criteria and training programs for Child Development Associates to be of great significance for the field of early childhood education. CAL is pleased to have the opportunity to contribute to the work of the Consortium by identifying and bringing together the considerable amount of research data on language and culture which is relevant to the needs of the program. CAL, as the principal clearinghouse in linguistics in the United States, has long been deeply concerned with applying the results of research on language toward the improvement of educational practices and content. In dealing with the bilingual child, particularly at the early childhood level, the importance of linguistic knowledge is crucial, for it is during this period that so much of the foundation for a child's linguistic competence is laid. It is in the belief that a better understanding of linguistic and cultural diversity can enhance the educational opportunities of minority group children, and contribute to improving the quality of life for all Americans, that this report has been prepared.

Rudolph C. Troike, Director
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Arlington, Va.
August, 1973

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M. S-T.

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I. INTRODUCTION

Because English is the national language of the United States, all non-English speakers must become bilingual in their native language and English if they are to participate in the national life of the country. "Bilingual children" in the context of this report refers both to those who have already mastered two language systems and to those who will be introduced to English as a second language in the first years of school. Unlike the case with many other countries, Americans who speak only English in early childhood may never develop bilingual competence. The dominant culture does not expect, nor even particularly encourage, its English-speaking members to become bilingual. It demands bilingualism only of its linguistic minorities.

In most cases, the many immigrant groups to the United States (Irish, German, Greek, Polish, Czechoslavakian, Russian, Scandanavian: see Fishman 1966) wanted to assimilate to the dominant "main-stream" culture, and generally succeeded economically, linguistically, and politically by the second generation of residence. Children often could not talk to their grandparents as English was adopted.

Other non-English speaking communities did not move to the United States; this country moved to them: the Native Americans, the Spanish-speaking in former Mexican territory in the Southwest, the Acadian French transplanted from Canada to Louisiana, and most recently the Puerto Ricans via our island conquest. Whether they have historically not wanted assimilation or they have not been allowed to assimilate by the Anglo majority, these diverse speech communities have maintained their linguistic and cultural identity for generations. The "melting pot" concept has not applied to them.

The Asian-American populations provide an example of 19th and 20th century immigration which did not lead to assimilation in language and culture, although these communities have often succeeded in breaking down the barriers to educational and economic integration.

We must give most children from these unassimilated minorities a discouraging prognosis for the future: poor housing and nutrition, negative self-concepts, inadequate education, poorly paying jobs . . . .

A number of intervention techniques have been instituted to narrow the experiential gap between such "disadvantaged" children and the expectations of the school (such as Head Start), but these programs have failed to show any lasting effect (Averch, et al 1972). Any further attempts to deal with the problems of the relations between majority institutions and minority groups at the early childhood level must begin with a recognition of the following facts:

a. Teachers and children come with culturally determined individual and group attitudes, expectations, and skills.
b. Bilingual children usually have different experiences from the ones assumed or desired by the school.
c. The experiences and academic degrees of teachers are not clearly related to how their student's achieve (Although their degree of cultural sensitivity seems to be).

d. Teacher attitudes and expectations toward children are based essentially on the children's social class membership.
e. Teacher attitudes and expectations trigger differential responses in themselves to linguistically and culturally diverse children.
f. Children tend to adopt the majority view of them as their own self image, and to live up to either positive or negative expectations.

Overcoming these problems and accepting and using bilingual children's linguistic and cultural experiences as bases upon which to build are important goals for early childhood programs, but they will require an understanding of the nature of language and its diversity, how children learn their first and subsequent languages, and the cultural attitudes and practices which affect the children's socialization and cognitive development.

Although concerned primarily with the child from three to five, we cannot isolate him from the whole of his experience. His family, community, and larger society are all prime determinants in his individual identity and his enculturation into that society.

The sections which follow attempt to provide these data for personnel working with bilingual children. Even more importantly, however, they address some of the common misconceptions and stereotypes of the majority culture which may inhibit real understanding of the bilingual child.

II. THE NATURE OF LANGUAGE

We must consider the nature of language in order to know what it is a child is learning when he acquires one or more of them. Definitions of language usually refer to its verbal features (oral and written), to its function in communication, and to its uniquely human character, but we require a much deeper understanding of its complex nature and use.

1. The spoken form of language is basic.

Speech occurred before writingin the history of language, as it does in the language development of every child. Even today writing is far from a universal characteristic of language: of the more than three thousand languages spoken in the world, fewer than half have ever been represented in writing.

2. Language is systematic.

It consists of recurrent elements which occur in regular patterns of relationships. Each variety (or dialect) of a language is a slightly different system, but equally regular. The vast majority of all sentences which are used have not been memorized, but are created according to a system of rules which the speaker is usually unconscious of using--or even knowing--if he acquired the language as a young child. It is safe to assume, for instance, that most of the sentences in a daily newspaper are combinations of words that have never been used before, because most of the events being reported have never occurred before. These new sentences are understandable because we understand principles (the system) by which words are combined to express meanings.

3. Language is symbolic.

It is a type of code. Experience is encoded by the speaker, transmitted by speech, and decoded by the hearer. There is no resemblance between the four-legged animal that eats hay and the spoken symbols [hors] or the written symbols horse which we use to represent it in English.

No sequences of sounds or letters inherently possess meaning. The meaning of symbols in a language comes through the agreement of a group of speakers. English-speakers agree that the hay-eating animal will be called horse, Spanish-speakers caballo, German Pferd, Chinese ma, Turks at, and Navajos łįį'.

We sometimes feel that onomatapoetic words do possess meaning in themselves and are not arbitrary symbols, but the bow-wow of an English-speaking dog is amh-amh in Irish, av-av in Serbo-Croation, and vang-wang in Chinese. It makes no difference whether the dog is an Irish setter or a Pekinese. Kindergarten and nursery school teachers know that children must be taught the English terms for animal noises when they teach "Old MacDonald Had a Farm". Children realistically imitate aminals they have heard before they learn oink, neigh, or the conventional terms in any language.

4. Languages change.

This process of change is slow, but inevitable unless all of the speakers of the language are dead. Misguided efforts to "preserve" the language forms of today or yesterday are futile and unfounded. Modern French is merely a changed form of Latin, and no one suggests the Frenchman of today has any more difficulty communicating than did his Roman ancestor.

5. Language is social.

The nature and form of each language reflects the social requirements of the society that uses it, and there is no standard for judging the effectiveness of a language other than to estimate its success in achieving the social tasks that are demanded of it. Although the capacity for language is inherently in the neurological make-up of every individual, no one can develop that potential without interaction with others in a society. We use language to communicate, to categorize and catalogue the objects, events, and processes of human experience. We might well define language as "the expressive dimension of culture."

It follows that a person who functions in more than one cultural context will communicate more effectively if he has access to more than one language or dialect.

6. Language has a system of sounds.

Every language (and dialect of a language) uses a limited number of classes of sounds to signal the differences between words. The number of such distinctive sounds, called phonemes, ranges from as few as sixteen (in Hawaiian) to around sixty (in Circassian, a Caucasian language); with English standing about half-way between these extremes. In order to understand the phonological system of bilingual children, we need to have a good understanding of the way speech sounds are made, and the differences and similarities in the sound systems of a child's two languages. In addition, some knowledge of dialectal and developmental differences in both phonological systems is important, and these will be discussed below.

7. Language has grammar.

The grammatical system of a language includes all of the formal features which express meaning or the relationships of elements in sentences. The grammar of one language is never exactly the same as any other, although some closely related languages have many types of structures in common. English and Spanish, for instance, share many grammatical features because they descend from a common ancestral language. The differences in the grammatical systems of two languages often cause problems for children who speak both.

Word order is one type of important grammatical structure. While English speakers ask Is the window open?, Spanish speakers usually say ¿Está abierta la ventana? Children learning Spanish as a second language may use the English order, ¿Está la ventana abierta? (also acceptable), but children using the Spanish order in English, Is open the window? will produce an ungrammatical question.

8. Language has meaning.

Every word in a language has one or more meanings that can be looked up in a dictionary, but we must understand a great deal more than that to know the meaning of what someone actually says.

To begin with, we must understand the cultural referents which words reflect in each language, how such referents are categorized, and even the patterns of thought such linguistic organization represents. An English speaker is used to thinking of feet and back and neck as belonging to all animate creatures, as well as to some inanimate objects such as chairs. When learning Spanish, he must learn to consider animals in a different category from humans, with patas, lomo, and pescuezo instead of pies, espalda, and cuello.

The standard box of eight color crayons may present another linguistic hurdle because of the different categorization of experience these reflect. The "basic" colors in English do not correspond to the "basic" color divisions in many other languages. In Navajo, for instance, the blue and green crayons are placed in a single category, labelled dotł'iź, whereas English black covers two distinct Navajo colors. A teacher of Choctaw children in Oklahoma reported she had thought a child was just "dumb" for coloring a duck brown when he was instructed to color it yellow. But the reason is easy to understand when we realize that these hues are categorized together under a single term meaning earth color in Muskogean languages.

Gestures, intonation, and even facial expressions that accompany language are very important to understanding what someone says, and these, too, are different in different language communities. The normal voice level in English may be interpreted as anger by a child from another language background, and his respectful aversion of his eyes may be interpreted as "shyness" or "sneakiness" by the English speaker.

The question of what contributes to meaning is of considerable current interest to linguistic theoreticians, and much of what they have to say is relevant to those concerned with language learning. The meaning of what is said, for instance, is largely dependent on what is not said, on what is presupposed or implied. Normally, when someone asks a question like How many brothers do you have?, the speaker presupposes that the hearer has some brothers, and the hearer may presuppose that the speaker doesn't know how many. But an adult may ask a child How many eyes do you have? when it is quite obvious to both that he already knows the answer. Such

violations of the normal rules of language use are quite common when middle class adults talk to children, and may partially explain why lower class children often do not respond well to such test items.

Because misunderstandings at this level of interpretation are seldom vocalized, we often fail to recognize them. We can be sure, however, that problems are common across languages, between generations, and among different ethnic and socio-economic groups.

9. Language is variable.

Every person has unique linguistic experiences and speaks in a slightly different way from anyone else. This unique individual speech pattern is called an idiolect. The idiolects of a group of people who are in frequent communication from childhood on will be very similar, and will differ from the idiolects of other groups of speakers with whom they have little contact. A group of similar idiolects which differs from others in some aspects of pronunciation, grammar, or vocabulary is called a dialect. Groups of similar dialects compose a language. All languages have dialects, and every speaker of a language is a speaker of a dialect of that language.

This means that there is no such thing as a "pure" language. All regional and social varieties of a language are equally well developed and systematic. They are not the results of imperfect attempts to emulate the "pure" or "real" language. Each child who is born into a general language community learns to speak the dialect spoken by those people with whom he is in consistent contact in his early years.

The term dialect, as it is used by linguists, has no pejorative meaning, but is simply used to refer to any distinguishable variety of a given language.

III. LINGUISTIC DIVERSITY

1. The origin of dialects.

Dialects develop as pronunciation, grammar, and vocabulary changes develop in the speech of people who are geographically or socially separated from one another. Linguistic divergence is normally a cumulative process, with small initial differences becoming marked variations if the groups remain separated.

Many dialect differences begin as differences between the speech of adults and children. Most are "corrected" to some extent, either directly or by adult example. In almost all respects, children speak the language of their parents. As children come together in play groups, however, peer group pressure and the prestige of individuals in the group lead to the emergence of group norms of usage, and groups of children who are isolated from one another by distance or social barriers will often develop slightly different linguistic systems. This is one of the basic agents of change in language.

To illustrate regional differences in vocabulary and pronunciation, a child who learns to speak English in Boston, Massachusetts, will carry water in a pail, but a child learning English in Austin, Texas, will use a bucket. A child learning English in most of the southern United States will not distinguish between pin and pen, but will pronounce cot and caught differently; a child in California will distinguish between pin and pen, but not cot and caught. A host of similar lexical and phonological examples can be found, but almost no grammatical differences in English have regional distribution.

Groups of speakers separated by social barriers also quite naturally develop slightly different norms in usage. The term social dialects usually refers to a division along socio-economic lines, but groups of speakers isolated for religious reasons (as the Amish) speak their own variety of English. There may be marked differences between the older and younger members of a speech community in addition to those which arise in the course of initial language acquisition, and the speech of men and of women differ in several ways. A man admiring another man's new hat would probably not exclaim, "What an exquisite creation!"

Commonly recognized linguistic indicators of "lower class" English usage are the pronunciation of they and day the same, the omission of final consonants in words, and such nonstandard grammatical patterns as He don't got none. "High class" usage is not as generally agreed on in our society, but would include stomach (or even abdomen) instead of belly, whom's in the "right" places, and perhaps British or New England pronunciation features.

A recent comparison of the spontaneous speaking vocabulary of four to six year old "disadvantaged" children in Missouri and generally middle class kindergarten children in New England shows

extensive regional and social differences (Sherk 1973). The lower class children used words like chitlins, skillet, lingo, shoats (poor people), pokey, greens, and fetch (several of which are also used by even the higher socio-economic levels in the South), but used no words at all in the bird and flower-tree categories collected in New England. With a ratio of one child at a low socio-economic level to five children at mid levels, disproportionate occurrences of the following words are reported:

apron	1:743
rat(s)	20:14
vegetable(s)	6:165
trash	52:0
steal	21:12
whip	23:3
party	9:800

Such differences in language use quite obviously reflect wide differences in cultural experiences, and in what the children will find understandable, relevant, or interesting.

Not all Spanish-speaking children have the same language system any more than all English-speaking children do. Many have come with their families from Cuba, Puerto Rico, or various parts of Mexico or South America. Many others are members of families who have lived for generations in parts of the United States where regional dialects of Spanish have continued to develop and change. All of these regional dialects have, as does English, stratified social dialects, creating the kind of complex language diversity that inevitably accompanies the geographical and social dispersion of its speakers.

The Spanish-speaking child will learn to pronounce calle as [kalye] in Peru, [kaye] in Mexico, and [kae] in parts of Texas and the Southwest. He will ride downtown on a camión in Mexico, guagua in Puerto Rico, camioneta in Guatemala, and omnibus through South America. Extensive differences are also to be found between the French of children in Louisiana and Maine, the Chinese of children in California and New York, and the Polish of children in Texas and Massachusetts. Dialect differences in these languages, as well as in English, reflect both geographic and social distance between groups.

2. Assigning relative value.

No dialect is inherently better than any other. Judgements on the relative "value" of different dialects are made for social, economic, and political reasons, and have nothing to do with the linguistic qualities of the dialects themselves. The dialects of upper class, educated speakers come to be judged "standard" in most literate societies and are used as the basis for written

language, while the dialects of less prestigious speakers come to be considered "nonstandard".

Besides sharing common features of vocabulary, pronunciation, and grammar, each speech community shares a set of values regarding the uses of language in various contexts. These include judgements on the relative prestige of different regional and social dialects, group and role identifications, and feelings about the appropriateness of different styles of language for self-expression on different occasions. Language variables are regularly used to judge someone's social background, educational level, personality factors, and even intelligence.

Social "typing" is often useful, and indeed cannot be avoided. It allows us to quickly define our orientation to other individuals, and is a basis for our cultural sense of "manners" and other conventions of interpersonal relations. It is a means for establishing preliminary relationships. The typing may assume negative aspects, however, and may cease to be just a mode of socialization. It may become a means of disaffiliation or rejection, of rationalizing prejudice. Stereotyping is used to establish social distance and social boundaries, and a dominant group may impose stereotypes on another group to maintain and rationalize its subordination.

Stereotyping as well as social typing may be an inevitable process, but it can consciously be brought under control. The answer lies in the recognition and understanding of real cultural differences, not in the proclamation that all people "are the same beneath the skin". That is an extremely ethnocentric approach, saying that all people are "like me".

The recognition and acceptance of linguistic diversity is critical in early childhood programs because any approach which stigmatizes a child's speech (or that of his family) will probably humiliate him, and certainly will create an environment which is not conducive to learning. There are additional important implications for later education since the child's own dialect of each language he speaks may affect the nature of the problems he will have in learning such secondary linguistic skills as reading and spelling.

3. Styles of speech.

All speech communities are linguistically diverse even if speakers know only one and the same language, were born in the same region, and are of the same socio-economic class.

Some of our rules for language use vary systematically depending on the social contexts of the speech act. These may trigger changes in our pronunciation, grammar, choice of words, gestures, and all other aspects of our linguistic behavior. A speaker's ability to interpret and produce appropriate styles of a language are part of his total communicative competence. The components of the social

context that must be considered conveniently form the acronym SPEAKING (Hymes, in Gumperz and Hymes 1972):

Setting

Where and when the speech act is taking place. Children are generally allowed to be louder outside than in, for instance, and may already have learned they are supposed to whisper (or not talk at all) in church.

Participants

Age, sex, kinship, social class, education, or occupation may make a difference. An English speaker would seldom have difficulty identifying the listener in a conversation as a young child by the speaker's grammar, word choice, and intonation (although the same style is sometimes used with pets). Many languages have different pronominal forms to indicate social distance, and the sex of a speaker to some extent determines appropriate word choice.

Ends

Style sometimes depends on purpose, whether the speech act is a request, demand, query, warning, or mere statement of information.

Act sequence

This refers to the prescribed form a speech act takes when it is closely controlled by the culture, as is usually the case with prayers, public speeches or lectures, and jokes. It also refers to what may be talked about in each, what can be appropriately prayed about vs. what can be appropriately joked about.

Key

The same words may express various tones, moods, or manners (serious, playful, belligerent, sarcastic). The signal may be nonverbal, such as a wink or gesture, or conveyed by intonation, word choice, or some other linguistic convention.

Instrumentalities

Different verbal codes may be selected. A bilingual may choose between languages, and even a monolingual will have a choice of registers (varieties along a formal-informal continuum). Many speakers are able to choose among regional and social dialects as well. The choice is usually an unconscious one and may indicate respect, insolence, humor, distance, or intimacy.

Norms

Norms of interaction and interpretation in a speech act include taking turns in speaking (if appropriate in the speaker's culture), knowing the proper voice level to express anger, and sharing understandings about such things as what to take seriously and what to discount. It includes knowing polite greeting forms andother "linguistic manners", like what not to talk about at the dinner table.

Genres

Some speech acts may be categorized in formal structures: poem, myth, tale, proverb, riddle, curse, prayer, oration, lecture, editorial. Even children are often expected to know a few of the forms appropriate to their culture, including the 'Once upon a time . . .' of middle-class English.

A change in any of these speech components may signal that some different linguistic rules should be in operation, but these are not the kind of rules found in grammar books. How they are acquired is an important but neglected consideration in our study of child language learning and total socialization.

The terms restricted code and elaborated code (attributed to Bernstein) are encountered in discussions of "disadvantaged" children, but are often misused or misunderstood. They refer essentially to different descriptive styles, each appropriate to speech contexts defineable in terms of the components listed above, and have nothing to do with "standard" vs. "nonstandard" usage. The restricted code is appropriate when the speaker knows the hearers well and shares a great deal of background information and experience with them. This style generally does not make use of many adjectives, adverbs, or subordinate constructions, and may not convey a great deal of new information. The elaborated code is appropriate for more formal settings where the speaker can take less shared information for granted and must be more explicit in conveying his message. It is an expected and necessary style for school recitation.

These two styles appear to correlate with social class, all classes using the restricted code on some occasions, but the lower class not always having access to the elaborated code when it is required. This apparent linguistic difference has been perniciously misinterpreted as representing restricted vs. elaborated thought processes. This is not true. Most language tests which have been used with young children are strongly biased against lower class social dialects, and the data they yield are entirely unreliable. Furthermore, preschool children who are not using an elaborated style evidently have at least the potential to do so. They can add the elaborated code to their linguistic repertoire in a very short period of time if a meaningful model and context for this is provided (Gleason, in Cazden 1972:101-106).

4. Code-switching.

Naive references are made to the "mixed-up" or "hybrid" language of bilinguals, as the "Tex Mex" or "Spanglish" spoken in the Southwestern United States. In fact, different languages (or different combinations of languages) are relevant and appropriate in different contexts. Poems are being written and formal speeches made in a mixture of Spanish and English, and the ability to switch codes effectively is recognized in many bilingual communities as an ability to be admired and cultivated. The switching itself communicates subtle meanings, and perhaps most importantly, identifies the speaker as a member of the bilingual rather than the monolingual community.

No speaker of any language is limited to a single linguistic code, although monolinguals are limited to switching dialects or registers within a single language. One of the communication skills which children learning a second language need to acquire is the ability to switch languages or dialects at will, and in accordance with the appropriate contexts, as discussed above.

Children growing up in essentially segregated bilingual communities may acquire only its bilingual code and not encounter models or social support for the "standard" or monolingual form of either English or their ancestral language. It is crucial to recognize that their language is as logical and systematic as any other, and that it is more appropriate for communication in their home and neighborhood than the "foreign" languages of schools in Mexico or the United States. These "foreign" languages of the schools must be learned if children are to function effectively in that context, too, but this should be viewed as addition to (not replacement of) the language of their home.

Bilingual teachers who reject a child's language, insisting from the beginning on "standard" Spanish, French, or whatever they speak instead, are just as damaging to that child's self concept and learning potential as those who feel he is without any valid language if he doesn't speak English.

Code-switching phenomena in bilingual communities can perhaps be best understood as responses to the different social relations that language signals. The ancestral language is almost always used with young children if there are grandparents in the home, but one or both parents may use mainly English, or switch from one to the other. Such switching is likely to be common between parents and bilingual friends in any case, since it signals closeness and informality. "Standard" monolingual forms of both languages are generally common only to more formal relations, and thus are seldom observed by young children at home.

Some bilinguals avoid speaking any language but English to their children in order to facilitate their assimilation into the mainstream Anglo culture. The fact that these children can then seldom participate fully in the bicultural community underscores the important functions of language, and the importance of cultivating

bilingualism and code-switching skills if our goal is a multicultural society.

Many variations in cultural values and social systems exist as well as the linguistic variation just described, although this fact tends to escape most of the researchers reported on below. Conclusions derived from studies of one or more groups do not necessarily apply to others, even if they speak the same language. A few generalizations can be made about all bilingual children, and a few about speakers of each language group, but an attempt must be made to identify the many stereotypes which we find--and to label them as such.

IV. CHILD LANGUAGE ACQUISITION

1. How language is learned.

A normal child can learn any language to which he has adequate exposure. If he hears and responds to two languages in his environment, he will become a bilingual.

Much of a child's language development is completed before he ever comes to school. By the age of six months an infant has produced all of the vowel sounds and most of the consonant sounds of any language in the world--including some that do not occur in the language his parents speak. If the child hears English spoken around him, he will learn to discriminate among those that make a difference in the meaning of English words (the phonemes), and he will learn to disregard those that do not. If the child hears Spanish spoken around him, he will learn to discriminate among some sounds the English-speaker learns to ignore, as the r's in pero 'but' and perro 'dog', and to disregard some differences that are not distinctive in Spanish, but vital to English word-meaning, as the initial sounds of share and chair.

The average child has mastered most of the distinctive sounds of his first language before he is three years old, and he controls most of its basic grammatical patterns before he is five or six. Complex grammatical patterns continue to develop through the school years, and he may add new vocabulary items even through adult life.

No child has to be trained to learn language. Given even minimally favorable environmental circumstances, he will gain substantial control of the language(s) regularly spoken in his vicinity within the first three or four years of his life.

This feat is little short of miraculous, and we are not at all sure how it is accomplished. The nature of our speculations has changed radically in the past decade, primarily due to recent developments in the field of psycholinguistics. These hypotheses have extensive implications for language development programs during early childhood.

It has been suggested by some that primary language acquisition is in large part the result of the child's natural desire to please his doting parents, who wait impatiently for him to utter a recognizable word. Yet even the offspring of relatively indifferent parents acquire language, as do children of parents who are completely deaf--if there is another at least minimal source of language in his environment.

It has been suggested by others that a child's language acquisition is purposive, that he develops language because of his urge to communicate his wants and needs to his caretakers. Research indicates, however, that talking develops as an activity that a child indulges in for its own sake. Up to the age of about 18 months, "talk" tends to accompany action or activity rather than being a substitute for it (Gesell 1940). Within his limited sphere

of activity, communicative needs seem to be satisfied by gesture and such extra-lingual vocalization as squeals, whines, grunts, and cries.

Perhaps the most widely held view is that a child learns language by imitation. It is true that some of a child's initial language learning can be attributed to his imitation of the sounds around him, but many of his utterances are quite original and cannot be explained as imitations at all. Furthermore, according to this theory, an adult's role would be to correct the child when he is wrong in his language use and to reinforce him when he is correct. In fact, there seems to be no evidence that either correction or reinforcement of phonology and grammar occurs often enough to be an important factor. Parents do correct such "bad language" as "pee-pee" (Horner 1968), and misstatements of fact, but not immature grammatical forms (Brown, Cazden and Bellugi 1969). The same lack of correction is found from India to Samoa as well (Slobin 1968).

Current research does support the following conclusions:

a. Language is uniquely human. Animal noises relate to biological states and processes, such as hunger, courting, danger signals, and anger. Animals cannot be trained to use these noises inappropriately; that is, they cannot switch noises and use one in a situation which would normally call for another (Lenneberg 1970b).

Further, although the great apes evidently have the physiological capacity to produce speech sounds, none has developed anywhere near the skill of any young child. And all of us who talk regularly to cats or dogs know that no matter how rich a linguistic environment we provide, we never get even one word in return.

Animals certainly develop communication systems, and some (like the dolphin's) seem quite complex, but none even approach the abstractness and complexity of the grammar of a two year old child.

b. Children have an inherent predisposition to learn language. This must be assumed in order to explain several facts:

1) Children around the world begin to learn their native language at the same age, in much the same way, and in essentially the same sequence.
2) Children have acquired most of the basic operations in language by the age of four, regardless of their language or social environment.
3) Children can understand and create novel utterances; they are by no means limited to repeating what they have heard, and many child speech patterns are systematically different from those of the adults around them.

In viewing the ability to acquire language in terms of genetic predisposition, we are saying that part of language structure is genetically "given" to every human child. We view English and every other language as an incredibly complex system which no child could possibly learn in his early years to the degree he exhibits mastery over it. As remarkable as his ability to create new sentences is, his ability to recognize when a string of common words does not constitute a grammatical sentence in the language, such as Give please some me milk, is even more so. He has never been told, surely, that that particular group of words is not an English sentence, but he knows. If a child had to consciously learn the set of abstract principles which indicate which groups of words are sentences in his language as opposed to those which are not, only the smartest would learn to talk, and it would take them many more years than it does.

A hypothesis for which there is a good deal of support is that a great many of these abstract principles are common to all languages, as opposed to the principles that are language specific, and that those that are universal are "programmed" into each human child just by virtue of his being human. These would be language-related genetic specifications, which would not be sufficient in themselves to account for language acquisition, but would account for a child's ability to process the smorgasbord of sounds and words that he hears and come up with essentially the same structures (in the same sequence) as every other child.

c. Children learn to talk. They will never acquire language unless they hear it. Lenneberg (1970a) draws a useful analogy between learning language and eating:

> Biology takes over [in learning to talk] in basically the same fashion as it does when the child metabolizes protein after eating. He uses the proteins but not in ready-made form. They are broken down into polypeptides and amino acids and reassembled according to built-in purposes, purposes embodied in the genetic codes that determine the directions of protein synthesis and serve the needs of his maturing body.
>
> The child needs language for survival just as he needs food. The information he receives from us may be regarded as raw material of a sort. It passes via auditory channels into the central nervous sytem where it is "absorbed", broken down into its elements, and resynthesized in the achievement of varied and complex language skills (p. 12).

Even if the universal properties of language are preprogrammed in the child, he must learn all of those features which distinguish his native language from all other possible human languages. He

will learn to speak only the language(s) he hears around him, no matter what his linguistic heritage. An American-born child of Japanese or Greek ancestry will never learn the language of his grandparents if only English surrounds him.

A child must learn those properties of his language that are not universal, that are not necessary in all human languages. For instance, in French we find the sounds [ö] and [ü]. English does not contain these sounds, nor do many other languages. [ö] and [ü] are possible language sounds, but their occurrence in an individual language is accidental. A burp and a cough, on the other hand, are not sounds of English or French. They are not found in any language nor could they be; this is not accidental. The child does not have to learn that such noises are not possible language sounds; he "knows" this innately in much the same sense as he invariably "knows" he can manipulate his hands and sets about grasping things with them as soon as his motor development permits.

Consider how innate knowledge of possible language structure saves the child from countless useless hypotheses about how the language he is in the process of acquiring works. For example, in English we say The baby is hungry and Is the baby hungry?; Your brother is here and Is your brother here? Note that in each case the question may be formed from the statement by moving the third word, counting from the left, to the leftmost position in each string of words. However, this rule would also generate In John is New York? from John is in New York, and Girl the little is here? from The little girl is here.

The utterances of children in the process of acquiring language deviate in many ways from those of adults, but children never make the kind of mistakes just illustrated. There is no human language which signals meaning by moving every third or fifth or seventh word to the beginning of the sentence, nor could there be one. It appears that only certain kinds of hypotheses can occur to the child because the mind works in certain ways and not in others.

If this were not so, we would have difficulty accounting for the fact that the sentences one child produces at various levels of language development, although often not conforming to adult models, are very similar to those of other children at the same level of development in all other language communities. They make the same kinds of mistakes.

One universal process in language which children make extensive use of in their language development is analogy. An English speaking child hears and uses forms like cat:cats; dog:dogs; and book:books. He unconsciously formulates a generalized rule for English plurals and correctly uses rat:rats without ever hearing that particular construction before. If his extension to foot:foots meets disapproval, he will revise his rule and learn the exception; if he escapes early correction, he will continue to use foots until some experience brings the "error" to his attention.

Language is learned in the sense that a child cannot acquire it unless he is in an appropriate environment, and in the sense that he will develop whatever specific variety of language (pronunciation, grammar, and vocabulary) is unique to his family's social group.

d. Children learn different styles of speech and paralinguistic behavior. Even young children are aware of the changing appropriateness of different styles of speech with different communicative contexts, and can interpret and use a variety of gestures, facial expressions, and other paralinguistic devices common to their own culture.

For example, a Spanish-speaking five year old in a California kindergarten started speaking English with a lisp, although he did not lisp in Spanish. The answer was his English-speaking friend, who had recently lost his front teeth. (The Spanish-speaker was obviously using a peer model for his English, and not his teacher.) As he made more English-speaking friends, he acquired a normal pronunciation, but he continued to lisp when the deviant pronunciation was appropriate--whenever he talked to his lisping friend.

Another example is provided by a linguistics professor in Texas who is from a dialect region where creek is pronounced [krɪk]; his wife pronounces it [krik]. His five year old son asked if he could go fishing in the [krik] one afternoon. The three year old daughter corrected him, saying, "Don't you know you're supposed to say [krik] to Mommy and [krɪk] to Daddy?"

Many more supporting examples are coming from experience in school integration. Young children add the appropriate dialect forms when they wish to identify with their new friends. Anglo children are adding the nonstandard English forms of their Black and Spanish-speaking classmates as well as the other way around.

Learning is also undoubtedly involved in this aspect of language acquisition and socialization, but there has evidently been no research at all in this area. We can safely assume that the process varies in different linguistic communities, however, and can speculate that it involves:

1) Some degree of imitation. There would be cultural differences in who provides the model, in what contexts, and to what extent.
2) Explicit correction by adults. This is likely to be minimal (again depending on the culture), but occurs whenever someone says to a child, "That's not a nice way to talk," or "Don't look at me like that," or imparts any other rule of sociolinguistic etiquette.
3) Feedback from social interaction. The reactions of others to any specific speech style or behavior, though often unconscious, probably constitute the most potent force in this process.

An analysis of the body movements of older bilingual children while they were using both languages suggests that a child will use only those characteristic of his native language if it is socially more prestigious, but will tend to modify his gestures and body position in the second language if it has higher status than his first (von Raffler Engel 1972). When a child's parents each speak a different language natively, this study of French/English bilinguals shows the child (boy or girl) will adopt the paralinguistic system of the mother.

e. There is a cutoff point for language development. Progress in language development usually stops at about the age of puberty--no matter what level has been reached. Mentally retarded children, who have had a slower rate of development (but in the same relative sequence), are likely never to develop a complete adult grammar for this reason.

Another consequence is seen in learning a second language:

> The extent of a foreign accent is directly correlated with the age at which the second language is acquired. At the age of three or four practically every child entering a foreign community learns to speak the new language rapidly and without a trace of an accent. This facility declines with age. The proportion of children who speak the second language with an accent tends to increase, but very slowly, so that by the age of 12, perhaps 1% or 2% pronounce words differently from native speakers. A dramatic reversal of form occurs during the early teens, however, when practically every child loses the ability to learn a new language without an accent (Lenneberg 1970a:9-11).

This has important implications for education because it means that fluent bilinguals are not developed in high school and college foreign language programs. Our bilingual children are the "advantaged" in this physiological sense. They have the innate capacity and the potential linguistic environment to accomplish what many of us have failed to do well in all our years of schooling.

2. How mothers talk to children.

A mother's language generally seems to follow the model her child sets, and not vice versa. She simplifies both her word choice and grammar, adding more complex structures as her child does, although her notion of "simplicity" does not correspond to the actual sequence in language acquisition. She imitates the child much more frequently than he imitates her.

In this imitation, mothers often provide expansions of the child's utterances. This process is of disputed importance. Brown and Bellugi (1964), Cazden (1966), and Lenneberg (1960, 1967, 1970) would argue that such expansions are not necessary for language learning, and perhaps do not even facilitate it. Others, such as Slobin (1967), think expansions by adults are quite important to linguistic development.

The answer to this controversy would be extremely important to all personnel in early childhood education interested in facilitating language learning in their programs. Additional research in this area is clearly needed, particularly when we add the complexities of development in two languages. A few studies have been made of minority group mothers talking to their children, but they seem very unreliable. We can only be sure that these mothers do not talk to their children as much as middle class white mothers do in the presence of a linguist, psychologist, or tape recorder.

While we lack information on just what, how, and how much a mother's language use contributes to child language development, we know that early linguistic stimulation is essential. And we should remember that the child is an active participant in this process, interacting with his social environment.

3. Sequence of language development.

We may view the child's developing in his first language as evolving into a more and more complex set of rules. This acquisition tends to correlate with increasing maturation. In the earlier stages, at least, increasing maturation seems to be more reliably definable in terms of motor development than chronological age.

Because the levels of language development can be delineated and studied, it is possible to talk about "child grammar", that is, to devise a set of rules to describe the kinds of sentences a child can produce or understand at a given maturational level (Menyuk 1969). The sentences which a child can process at a particular developmental stage are not viewed as failures on the part of the child to produce sentences of the same grammatical form as adults, but are considered the normal output of all children at that level of development. As the child matures, so do his language abilities. Since certain grammatical processes are more complex than others, they require a higher maturational level of the child than simpler ones. In order to master complexities in his first language which are beyond his present linguistic grasp, what the normal child needs is additional time, not additional stimuli (Piaget 1955).

Linguists probably know more about the child's acquisition of his phonological system than they do about other aspects. The first sounds an infant makes are reflexive (0-3 months) and associated with physiological states. During the next "babbling" period (3-12 months), he demonstrates almost unlimited phonetic capability,

producing sounds that will have no later use in his language. When a child first begins to distinguish meaningful speech sounds, he has only one consonant and one vowel, and can produce words like [mama]. The next step is differentiating between a labial consonant (like [m]) and a non-labial (like [d]) allowing [dada] as well. The next distinction is between back and front vowels (as [a] and [i]).

The process of splitting of sounds continues until the child has mastered the whole inventory of phonemes in the language. Then the process stops. Some problem pairs are [t]:[k], [θ]:[f], [w]:[r], and [l]:[y] because of their acoustic similarity. The most dissimilar sounds in his language are distinguished first, and the most similar last. Most sounds are controlled by a three year old, and all by the age of about seven.

Semantics, or meaning, is basic to all language learning. Brown (1973) suggests that the first meanings are an extension of Piaget's "sensorimotor intelligence". A child is innately capable of distinguishing objects, recognizing relationships, and learning that environmental experiences can be expressed with language. All children in the first stage of language acquisition (18 to 24 months) have the same repertoire of operations and relations to express this meaning, whatever their first language. These include naming, negation, action and object, location, possession, and attribute.

In the second stage, children learn noun and verb inflections, means for expressing spatial relations, and some auxiliary forms in grammar. Although most basic structures have been acquired by four or five, the acquisition of syntax continues at least through age ten and perhaps never terminates completely (C. Chomsky 1971).

The rate of a child's progression through these and subsequent stages will vary radically among children, but the order of development is invariant across both children and languages. The rate is influenced by both family interaction variables and intelligence, while the order has been "primarily determined by the relative semantic and grammatical complexity of constructions" (Brown 1973:59).

4. Language and physical maturity.

The following correlations of motor and language development are taken from Lenneberg's "On Explaining Language" (1970c:4):

Age	Motor Milestones	Language Milestones
0.5	Sits using hands for support; unilateral reaching	Cooing sounds change to babbling by introduction of consonantal sounds
1	Stands; walks when held by one hand	Syllabic reduplication; signs of understanding some words; applied some sounds regularly to signify persons or objects, that is, the first words

1.5	Prehension and release fully developed; gait propulsive; creeps downstairs backward	Repertoire of 3 to 50 words not joined in phrases; trains of sounds and intonation patterns resembling discourse; good progress in understanding
2	Runs (with falls); walks stairs with one foot forward only	More than 50 words; two-word phrases most common; more interest in verbal communication; no more babbling
2.5	Tiptoes 3 yards (2.7 meters); walks stairs with alternating feet; jumps 0.9 meter	Vocabulary of some 1000 words; about 80 percent intelligibility; grammar of utterances close approximation to colloquial adult; syntactic mistakes fewer in variety, systematic, predictable
4.5	Jumps over rope; hops on one foot; walks on line	Language well established; grammatical anomalies restricted either to unusual constructions or to the more literate aspects of discourse

5. Language and concept development.

Given the complexity of language, it is no wonder that even adults with their mature intellects seldom attain native fluency in a new language. But children, with their limited memories, restricted reasoning powers, and as yet almost non-existent analytical abilities, acquire perfect fluency in any language to which they are consistently exposed. The ability to acquire language could not be dependent upon intellectual powers alone.

The argument has been presented that children universally accomplish this feat because the human infant is genetically endowed with the ability to do so. All available evidence indicates that this ability to acquire a native language is not a function of general intelligence. A 12 year old child with an IQ of 50 is in control of a linguistic code. His IQ will degenerate to about 30 by the age of 20, yet he will not lose his linguistic ability (Lenneberg, Nichols, and Rosenberger 1964). At the same time, a child with a clearly superior IQ will not necessarily begin to speak earlier, or with better results than a child of ordinary intellect (Gesell 1940). These facts would be difficult to explain if the ability to acquire language were simply a facet of general intelligence.

Yet language and concept development are inexorably related. There are absolute correspondences between the level of cognitive development and the type of relationships that can be verbalized,

and mental age correlates more closely than chronological age with many of the kinds of sentences children understand.

Those who work with linguistically diverse children should view with suspicion all claims that the developmental sequence of concepts is universally the same. There is good reason to believe that this sequence is influenced by the child's culture to some extent.

It may be influenced by his language, since language facilitates (and to some extent may determine) the categorization of experience (Segil 1964). Navajo children appear to categorize objects much more frequently along the dimensions of shape and use than do English-speakers of the same age, for instance, and relatively less frequently by color and size. This might be explained by their language, which requires categorization by shape as a basic grammatical process and the concept of use in nominalization, or naming.

These correlations do not mean that language is entirely necessary for cognition. Deaf children organize experience in much the same way as those who hear, and all children can solve many kinds of problems without being able to verbalize them. The reverse is very unlikely; expression in language cannot precede cognitive development.

When a second language is learned as an adult, the process is one of learning new labels for concepts that are already developed. In early childhood bilingual contexts, a child is learning to express many brand new concepts in one language or the other, and language and concept development cannot be separated. This suggests that careful attention should be paid to their developmental sequence in the child's particular culture--for the sake of the child's emotional well being as well as efficiency. It is also important to decide which language to use to express which concepts if linguistic interference is to be minimized.

6. Boys vs. girls.

Even young children can be reliably identified as to sex by judges who hear only their recorded voices. This is not a difference in pitch, but is identifiable in the formant patterns recorded by a sound spectograph (Sachs 1972). This suggests that part of language acquisition is developing cultural patterns for marking sex-identification in speech.

Psycholinguistic studies of language development are not finding girls to be superior, which is at variance with older tests. Berko (1958), for instance, measured children's ability to extend the rule for forming the past tense of melted to new forms. She found no significant difference between scores of boys and girls at seven age levels from 4 to 7 years.

A significant difference in second language learning was found to be in favor of boys in a Fresno, California, kindergarten program (Manning and Brengelman 1965). It is a probable example of how child-rearing practices are an important variable, at least in how

the children respond to both tests and to second language instruction. The Mexican-American boys in the classes tended to be much more extrovertive, and much more actively involved in the second language drills and games. The Mexican-American girls talked less, participated less, and evidently learned less in the program.

The better grades and higher achievement scores which girls receive in school is undoubtedly a cultural factor in our society, and not due to any advantage they have been alleged to have in language development.

It is important to add that the results of the Fresno program which show more active boys to be better language learners is also an artifact of our culture. That program was based on "learning by doing". There is no reason why different methods would not be equally successful for children with different styles of learning.

7. The effects of socio-economic status.

We often hear the claim that economic deprivation and the social conditions associated with it tend to interfere with language development in children. We need to view such claims very skeptically, since the poor performance of a linguistically and culturally different group of children on various tests is usually only reflective of the linguistic and cultural bias of the tests being used, or of the testing situation itself.

This deficit hypothesis is held by many who are in the field of bilingual education. In a handbook for educators published by the Office of Education, for instance, Ulibarri states, "The teacher must remember that the child coming from an impoverished environment has had little language development in either his native vernacular or in English" (1969:38). And Engelman (1969) has said that migrant Spanish-speaking children in the Midwest must begin learning English from scratch because they come to school with no concepts at all.

There are research reports which to some extent support this notion of linguistic retardation among children of low socio-economic status (SES): Jones and McMillan (1973) find their speech to be "less fluent and grammatically less complex", and Quisenberry (1971) finds significant lag in their syntactic maturity at age four. Although the lower SES children in these studies tend to be from minority groups in the United States, there is some data from other language communities as well. In a study of Italian children in Rome, Parisi (1971) finds that SES differences appear in language development at about 3 1/2 years and that the split gradually widens, especially between 5 1/2 and 6.

Not all researchers agree: Templin (1957) reports an SES difference in language production at age 3, but says there is no indication of cumulative deficit; Shriner and Miner (1968) find no SES differences in children's language structures; and Evans (1971) finds no SES (or Mexican-American/Anglo) differences in

auditory discrimination or repetition tasks. In a fairly extensive study of the language maturity of children in Baltimore and the surrounding area, Entwisle (1967) found low SES first graders living in slums more advanced linguistically than higher SES children in the suburbs (although by the third grade the slum children lagged behind).

One safe conclusion is that we are not sure what children do not know about their language. Another is that both children and languages are exceedingly complex. Part of the disparity in the research results cited above is due to the selective view each takes of what aspect of language to measure: number of words used per sentence; ratio of modifiers to nouns and verbs; percentage of subordinate structures; patterns of word association responses. Tests of "language development" are not all testing the same thing. Part of the disparity is due to what complete language system is being selected from; in most cases it is the middle class adult speech community to which the testor belongs, and different groups of children will have different degrees of experience with it. Part of the disparity is due to diversity in child/testor rapport.

We should not deny the importance of language testing because of this complexity, although we should reject the stereotypes which some of them support. These are potentially very damaging to the self-fulfillment, social development, and educational achievement of many bilingual children. In a positive sense, finding out what children do know about their language is an important prerequisite to understanding and accepting them where they are, to using their diverse linguistic and cultural experiences as resources upon which to build.

8. Finding out what children know.

A principal in one Texas school was so upset with a language assessment program being used on his "disadvantaged" kindergarten students, he called one of the testors into his office, pointed to a picture on the wall, and said, "Tell me everything you can about this."

The woman stumbled over a few incoherent words (scoring "non-verbal", no doubt), but of course gave no true sample of her linguistic competence in response. Although such a demand is outside the bounds of normal communication, and often threatening to children as well as to the adult in this instance, this questioning method is currently in wide use to determine the language proficiency of young children.

If the Texas principal had not been trying to make a point about unfair testing techniques, this situation would never have arisen between two adults. We don't talk to "people" like that.

There are often appropriate differences in the linguistic code used between adults and between an adult and a child, including different word choice, grammatical complexity, intonation, and

such paralinguistic factors as gesture, facial expression, and posture. It should always be remembered that these differences are largely culture specific, and a child from one culture can easily misinterpret the intent of an adult from another group.

The culture of the school is closest to middle class white norms, but it utilizes some unique linguistic patterns. Some of these patterns have extended down into early childhood programs as well, and may be seen as inhibitors of spontaneous interaction.

Labov (1970) lists these potentially inhibiting practices as:

1) Aggravated commands. We say "Do as you're told" and "Talk to me" to children, but never to adults.
2) Repeating what the child has just said.
3) Obvious lying. This is usually done to force answers to questions the adults obviously already know the answer to.
4) Demanding "correct" answers to moral questions, rather than factual questions, even in tests supposedly designed to measure a child's control of his language.

When the verbal context is an artificial testing situation, or any context which is threatening, there is little reason to expect a natural response from a child.

There are no completely appropriate language evaluation measures for young children from linguistically and culturally diverse backgrounds. Natural speech can only be elicited in natural communicative contexts, and listening to children talk to each other in the course of work and play will provide more reliable information on their fluency and ability to express themselves than any formal techniques.

For an adult to find out what a child is thinking, what he knows, he should talk to the child very simply and directly. He should avoid the inhibiting aggravated commands, repetitions, lies, and moral injunctions. He should <u>listen</u>.

V. BECOMING BILINGUAL

1. Learning a second language.

While it seems to be much easier for a young child to acquire a second language than it is for an adult to, even he cannot learn it as he did his first. For one thing, a child entering kindergarten at age five has spent his waking hours for four years mastering his native language, but the school has only a few hours a day to bring the child to the same level of competence in the second language if he is to achieve successfully in an English-speaking school. This is one reason why the presentation of sounds, structure, and vocabulary must be made in a way which efficiently shortcuts the time required for learning English if he has immediate need for it in first grade. Bilingual programs do not put the same time constraints on learning the second language.

Another major difference in first and second language acquisition is that a child's first language learning is closely related to his cognitive development. He acquires his language at about the same time as he expands his conceptual powers. Second language learning during the school years has an entirely different relationship to conceptual maturation. In general, a child learns his first language to express the new meanings he perceives in his environment; in a second language, he usually learns new forms to express concepts he has already assimilated.

First and second language acquisition share at least one important feature: the learning rate of both depends in part on the child's need andopportunity to use the language to communicate.

There appear to be extensive differences in the language learning faculties of children and adults which suggest that different methods and materials are appropriate for each age group. We are sure that abilities differ, but the bases for these differences are largely unknown at the present time. They may result from neurological changes, from loss of an ability (such as eidetic imagery), from a shift of set or attention, or because of the adult's greater richness in semantic associations. Major differences include (Ervin-Tripp 1968):

a. Children show a greater readiness to learn the language of their contemporaries in a new linguistic environment, to join the group.
b. Children enjoy rote memorization, while adults prefer solving intellectual problems.
c. Adults emphasize the content of language, often neglecting its formal system.
d. Children are more perceptive to the sounds of a language, adults to its meaning.
e. Children relate speech more to the immediate context, while adults may attach it to related thoughts not immediately relevant.

f. Children usually learn new words through sensory activities, adults in a purely verbal context.
g. Children can make linguistic abstractions--learn about structures never directly presented to them, but adults have a greater capacity to remember stated grammatical rules.
h. Children are less subject to interference from their native language systems than are adults.

2. Interference phenomena.

As a child develops his control over his own native language, the linguistic habits involved in the perception and production of the language become increasingly fixed. Although all physiological normal children are born with the capacity to produce any sound used in any language, as they get older, they lose the flexibility to produce other sounds. More importantly in some respects, they learn to hear all sounds in terms of the particular set of sound-categories used in their own language. "Foreign" sounds are not heard as such, but rather are unconsciously and automatically pigeonholed in one of the pre-existing categories of the native language. Spanish speakers, for example, commonly hear English ship and sheep as identical, because the differences in these vowel sounds are not distinctive in Spanish. English speakers, conversely, commonly have difficulty in recognizing the difference between the r-sounds in Spanish pero 'but' and perro 'dog'. It is not that they are inherently incapable of hearing the particular differences, but rather that they have been conditioned not to, by their previous experience with their own language.

Comparable problems occur in grammar and vocabulary, all of which result from the natural tendency of a speaker to carry over the habits of his native language into the second, or to translate from one into the other. All of these problems of perception and use of a second language which are due to the native language habits of a child are termed linguistic interference.

Many interference problems can be predicted and explained through contrastive analysis (a procedure for comparing two languages: see Saville and Troike 1971). Such analysis is also useful in ordering the elements of the second language so that they may be presented in a graded sequence. Being aware of systematic differences between languages is a useful prerequisite for developing teaching methods and materials. Because languages are systematic, a child's speaking habits will not be effectively altered by piecemeal "correction" of his native habits as he learns English, and such an approach may inhibit fluency in any case. The new elements of English need to be taught as part of a new language system which will be added to the child's total linguistic competence.

Because language is essentially a social phenomenon, learned in a social context, and used to communicate with others in a society,

it is not surprising that some social factors also interfere with second language learning. We need to perceive and understand cultural as well as linguistic differences in our students if we are to teach effectively.

The most important factor in the home affecting second language learning is the attitude of the parents toward their own speech community, toward the school, and toward the prospects of acculturation. Also important are the educational level of the parents, the degree to which the child interacts with the second language community, and the child's ordinal rank among the children in the family. The oldest child may have no reinforcement at home for his second language experiences, while a younger child will have brothers and sisters who may also be learning the second language at school.

It should not be surprising that we sometimes find factors in the schools themselves which interfere with a child's second language learning. Where these occur, they include:

a. Inappropriate teaching methods and materials.
b. Limited peer associations: little need or opportunity to communicate in the second language.
c. Negative attitudes toward the child's language and culture.
d. Low expectations of learning capacity.
e. Administrative segregation of linguistic minorities into "special" classes.

3. Optimum age for second language learning.

A good motto might be "the sooner the better" for learning a foreign language--prior to age six, if at all possible.

Lenneberg's research (1970a) reports that any child of three or four can learn a foreign language without a non-native accent if the context is favorable, but that this ability diminishes with age. Further substantiation for this view comes from Penfield (1965), who argues that only a young child can establish a completely new center in the brain for the second language system. After about age twelve, a speaker passes out of this formative period and the initially uncommitted part of the brain he could have used has been taken over for other functions.

Some evidence to the contrary cannot be taken very seriously. Hakes (in Ulibarri 1969:116) says, for instance, ". . . interference and negative transfer are more common with the bilingual than with the monolingual student." Granted that a child will not experience interference from his second language if he doesn't have one, but this doesn't answer our question. At what age can a child most efficiently learn a second language?

Despite the neurological evidence favoring early childhood, there are other considerations. One is the child's first language development; there is some reason to believe that a child will

experience more interference between language systems if the second is added before the first is completely developed (at about age ten). Another is the child's self-concept; some hypothesize that a child may not see himself as a stable whole if he has two cultural identities before one is accepted, that he will grow up between two languages and two cultures, a condition known as anomie. There are many instances of a bilingual child refusing to understand or use one of his languages for a period of time, essentially choosing one identity and rejecting the other.

If a child living in the United States does not speak English, he has no choice other than to become bilingual. The optimum age for introducing English to him as a second language depends on several social factors as well as on the neurological ones. If he lives in a monolingual non-English speaking community and will have access to a bilingual program in first grade, the early childhood years can perhaps best be spent on first language development and enrichment. If this same child will not have access to a bilingual program, however, it is probable that he will experience frustration and failure in first grade unless he has prerequisite English language skills. A high priority should be placed in this case on teaching him English as a second language during early childhood. This is important, since a child whose initial experience with school is failure can seldom be reclaimed in remedial programs. He rarely catches up.

A child in a bilingual home and community with positive attitudes toward both of his languages and cultures can probably benefit from the neurological advantages of early second language development without running risks of a negative or amorphous self-identity.

4. Psychological factors.

It has long been recognized that attitudinal factors are very important in learning, and secondlanguage learning is no exception. If a child has a positive attitude toward the English-speaking community and wants to relate to it, he will learn English better. If an English-dominant social group puts a stigma of inferiority on a child's native language, it can easily create a barrier to learning.

Teachers need to be as sensitive to their own attitudes as to the child's. The way they feel about their cultural and linguistic identity is an important factor in the way they relate to children of the same or different cultural backgrounds. Most teachers are members of the middle-class, accept its values, and feel justified in demanding middle-class standards from all children. Teachers who have recently migrated to the middle-class from lower-class origins may reject children from the same background because they are a threat to their change of identity.

A teacher who recognizes these feelings in herself should be able to control this rejection and become a positive model for the children to identify with. Unrecognized, such feelings must create a source of negative identity and conflict.

Motivation is another key factor in second language learning. Every child learns a great deal of his language from his peer group, and one of his strongest motivations for learning language is his desire to communicate with them. We should therefore provide as much opportunity for inter-child communication as possible. Programs which assign English-speaking children to one area and non-English-speaking children to another are failing to recognize or utilize one of the most powerful psychological factors in language learning. Children from diverse language backgrounds will readily learn to communicate with one another when they have both need and opportunity to do so.

VI. PROFILES OF BILINGUAL CHILDREN

1. Mexican-American children.*

Everyone who lives in the Southwestern United States "understands" Mexican-Americans, their values, their problems, and their life-style. To prepare teachers of Mexican-American children (in case the teachers come from another part of the country or lack assurance in their classroom practices), the educational literature and local curriculum guides provide handy lists of these cultural traits. Mexican-Americans are reported as typically:

a. Passive. They accept their poor lot in life, saying, "Que será, será."
b. Non-competitive. They lead a peaceful rural existence and do not care to join the urban rat race. Nor is much attention paid to such competitive aspects of school as test scores and grades.
c. Present-oriented. They work to satisfy present needs, and not for future goals. (This explains the lack of importance the family places on their children's education.)

Many Mexican-American children are considered "alingual" as well--without language. They speak only a mixture of Spanish and English, really neither one, or they don't talk at all. This is blamed on their noisy, crowded home environment and the number of children in each family, which prevents the mother from talking much to any one of them.

In fact, almost no generalizations about Mexican-Americans can be substantiated by objective research if one does not begin with the invalid assumption that the "Mexican-American culture" is a monolithic whole. There are important regional, social class, and rural/urban differences in the population which are seldom taken into account when data are reported.

Little is really known about the values Mexican-American children learn by being members of that ethnic group. The passive stereotype is commonly applied by the dominant group in a society to minorities, and it may reflect a coping style developed by historically oppressed people in this country to avoid calling attention to themselves or "getting into trouble". It is interesting that the stereotype is being maintained even while such formerly "passive" minorities as Blacks, Chicanos, and Indians are rapidly changing to a much more active coping style.

This contradiction was dramatized several years ago when a well-known Mexican psychologist reported on his cross-cultural

*Information for this section is taken primarily from "The Mexican-American Preschool Child: A Report on Current Research," by Rosario C. Gingràs (Appendix A).

studies during a meeting at the National University in Mexico City. At the very time he was presenting his statistically- impressive evidence that Mexicans are passive, the University was just beginning to recover from a full-scale student riot. His conclusions were drawn from the responses to such multiple-choice questions as, "What would you do in case of an earthquake?" Texas Anglo students included in the study were judged "active" for responding that they would run outside, while Mexicans were judged "passive" for responding that they would stay inside. These responses prove only that Mexicans know more about earthquakes than do Texans. Californians, too, stay inside in doorways during an earthquake if they are in an area of tall buildings, and it usually takes only one such experience for their children to learn such "passivity". (Such fallacious interpretations of data clearly show the general need in research to be sensitive to cultural bias.)

A study of the cooperative vs. competitive behavior of Anglo, Black, Mexican-American, and Mexican elementary school children (Madsen and Shapira 1970) shows the Anglos and Blacks most competitive with Mexican-Americans somewhat less, but still much more so than the Mexicans. This may well be an urban/rural difference instead of an ethnic one, however, since the Mexican group was rural and only about 20% of the Mexican-Americans in the Southwest still live in rural areas. It may also be a social-class difference, since Wasserman (1971) reports more cooperative behavior among "blue-collar children"--whether Mexican-American, Black, or Anglo. Another study by Kagan and Madsen (1971) included four and five year old children and showed no differences at all at that age. Only 3% of the moves of each group in the test rates "competitive", and no group behavioral differences appeared along this dimension until age seven to nine. Yet another study (Del Campo 1970) finds that Mexican-American children score <u>higher</u> on competitive values than do Anglos.

Concern for present needs rather than future gratification is a well-documented characteristic of those who live in poverty. There is absolutely no basis for the stereotype which attributes this to Mexican-Americans as an ethnic group. As for parental interest in education, Mexican-American families place about the same emphasis on education as any other families (Anderson and Johnson 1971). Educators must look elsewhere to explain the high degree of academic failure these children experience.

Claims that Mexican-American children are "alingual" are based on inappropriate testing techniques and misunderstanding about the nature of language and linguistic diversity.

Most Mexican-American children already have two well-developed language systems before they enter school, although they may speak "nonstandard" dialects of one or both. It is quite natural for them to switch from one language to the other, as do adults in bilingual communities, although they should also learn to keep the two codes separate on more formal occasions as they mature linguistically. What is sometimes called "Tex-Mex" is a regional variant

of Spanish with some English borrowings in the lexicon. Words like troca for 'truck' also occur commonly in the Spanish of Northern Mexico.

Even older children's Spanish is often deprecated by educators who do not understand the nature of language. An educator in Texas writes:

> He speaks Spanish with his playmates. But it is an impoverished Spanish, a language which has been culturally "beheaded" by its forced separation from its own literary heritage.

Another, from Arizona, says:

> The fact that the pupil's home language is a colloquial Spanish may be only one additional handicap, no more important than other cultural handicaps.

Conclusions that Mexican-American children's English is stronger than their Spanish (e.g. Cornejo 1973 and Swanson and DeBlassie 1971) may also be based on linguistic naiveté. Those who always speak one language at home and always speak the other in a different domain (like school or work) learn the vocabulary for each domain only in the relevant language. A child may know only the Spanish terms for furniture or cooking utensils found at home, for instance, and only English for such uniquely scholastic objects as chalkboard and filmstrip projector, or terms in subjects like geography and science which he might never discuss at home. Even bilingual teachers who were educated themselves in monolingual English schools have experienced considerable initial difficulty teaching these subjects in Spanish.

Intelligence and achievement tests in Spanish (particularly when normed in Puerto Rico or Mexico) are often just as inappropriate for these children as those in English, and are just as unreliable. It is little wonder that so many studies find Mexican-American children have a lower IQ than Anglo children.

Although there are several reliable descriptions of the language of Mexican-American children (Lastra 1969, Carrow 1971, González 1970,1973), there are serious needs for further research, including:

a. Studies of regional and social variation in adult Spanish-speaking communities in the United States. (Child language needs to be described in terms of the adult speech around him, and not a different norm.)
b. Studies of language development in the same region by children from different socio-economic levels.
c. Studies of code-switching phenomena, by adults and by children, and in different contexts.

d. Studies of the acquisition of social rules governing language use.
e. Studies of second language acquisition controlled for age, socio-economic level, and learning context.

Denying the stereotypes that appear in the educational literature does not mean denying all differences. The "average" Mexican-American family does differ from the "average" Anglo family in size, occupational level, and economic status; a larger percentage of the Mexican-American population belongs to the Catholic church; a larger percentage maintains bilingual competencies than any other ethnic group; and a disproportionate number of Mexican-American children do fail in school.

Those who fail are most likely to be different from the mainstream Anglo norms in most of these respects, by definition the "unacculturated". A primary goal of early childhood programs has often been to try to eliminate these differences, to change the children and/or their families to fit the educational system they will enter. An alternate possibility, at least theoretically proposed by advocates of bilingual/bicultural programs, is to accept and build upon individual and social differences, to change the educational system to fit linguistically and culturally diverse children.

2. Puerto Rican children.*

The Puerto Rican population is geographically divided by the sizeable chunk of the Atlantic Ocean which lies between the Island of Puerto Rico and the U.S. mainland. Historically the population of Puerto Rico is a racial and cultural combination of Spanish, African, and Taino, and currently the mainland group is a heterogeneous mixture of temporary residents, recent migrants, older migrants, and native-born.

The Puerto Rican community in the United States is in a state of turbulent change, and the differences which have developed among the Islanders and the mainland groups have thus far prevented that change from taking a single, unifying direction. Migration has brought new problems to adults and their children; the older mainlanders still feel ties to the Island, but also feel their own situation is not always understood by those in Puerto Rico.

Much of the controversy focuses on education and language policy, on the desired amount of acculturation to the dominant U.S. language and culture.

The still-lingering resentment against U.S. imperialism in Puerto Rican education is understandable when we read of the

*This section is based in part on "The Puerto Rican Child: His Culture and His Language," by Myrna Nieves-Colón and Edna Acosta-Belén (Appendix C).

language policy imposed in the Island in the first half of this century (Cremer 1932):

> The unifying effects of a language are strong. A double language practice is disintegrating in effect.
>
> One of the handicaps to uniformity of language usage is the unwillingness of the older generation to cooperate for the benefit of their children and the nation at large.
>
> Since the United States is a major nation of the world, Porto Rico can well get the pace from a growing and ascending nation and learn the expression of the ways of a great people.

The Puerto Ricans constitute New York's newest and youngest minority group. They account for one fourth of the New York state school population and 70% of the non-English speakers in New York City. With a median income of only $3500, one third are on public welfare.

Poverty and the pressures of cultural displacement and change are sufficient to account for most of the other problems which beset Puerto Rican parents and children: breakdown of the traditional family structure, emotional disorientation, discrimination, and educational failure.

The family roles for the traditional Puertorriqueño were clearly defined, but both poverty and affluence are eroding this structure. In a large city like New York, there is often more opportunity for an unskilled or undereducated woman to find employment than her husband, removing her from the traditional family role and creating many conflicts for the male ego. On the other hand, a breakdown of these roles with more even distribution of labor and responsibility is also a result of higher socio-economic status and assimilation (McCauley 1972). More general evolutionary factors may also be at work, since there is a change in this direction throughout Latin America which cannot be considered assimilation to Anglo American culture.

There are large numbers of "abandoned" children reported in both Puerto Rico and New York. The traditional extended Island family copes with this problem, but the different family patterns in New York have deprived children of this security.

> Traditional features of Puerto Rican culture (Machismo, the practice of the mistress, consensual unions, the culture of poverty) have created a problem of abandonment in the past. In the process of migration, the cultural patterns whereby people sought to cope with the consequences of abandonment are easily lost (Fitzpatrick 1971:159).

A further breakdown in family structure occurs as children are exposed and educated to different values than their parents hold. The resulting changes in attitudes and behavior is often seen as disrespectful, and can be very threatening.

There has been a very high rate of mental illness in the Puerto Rican populations of both the Island and New York, especially in the form of schizophrenia (Malzberg 1956, Fitzpatrick 1971). The reasons usually given for this are only speculative, but it must be taken as an indication of the very strong cultural pressures being felt in the Puerto Rican community. Young children are not exempt from these emotional pressures, and often express feelings of inferiority.

Discrimination against Puerto Ricans in New York has been partially for racial reasons, by both Blacks and Anglos, and partially for economic reasons. Although certainly victims of complex circumstances beyond their control, the large percentage of Puerto Ricans on welfare rolls engenders resentment from many overburdened taxpayers.

A reflection of these attitudes may be found in the nature of references to Puerto Ricans in English vs. Spanish dailies in New York City (Fishman and Casiano 1969). Although the English language papers showed little interest in the Puerto Rican community at all, except when there were violent disturbances in Spanish Harlem, the reporting they did was much more of their needs and problems. Little note was taken during the months surveyed of Puerto Rican leaders, social functions, holidays, or creativity.

As measures of educational failure, Puerto Rican children have the highest dropout rate of any ethnic group in New York, and a great many adults are still functionally illiterate. The current problems of Puerto Rican students are attributed to such factors as the low education and socio-economic levels of their parents, English language deficiencies, and misunderstanding or insensitivity on the part of their teachers. Attitudinal factors within the Puerto Rican community also affect student achievement, however. Dulay and Pepe (1970) report that Puerto Rican children's English proficiency correlates to a high degree with whether or not their parents wish to return to the Island.

Objective information on these children is meagre. We know that traditional child-rearing practices differentiate sexual roles from a very early age, and these make a significant difference in educational attitudes and performance. For one thing, Puerto Rican girls show a higher anxiety pattern than boys when in a situation where they are threatened with failure, as when taking a test. The boys low anxiety is probably a function of the cultural attitude toward their admission of anxiety (Siu 1972).

Three and four year old Anglo and Puerto Rican children have been observed and compared while responding to a "demanding cognitive task" (Hertzig, et al 1968). The differences in this case were not

believed to be due to differences in socio-economic level (although this was evidently not controlled), but in home experiences:

a. Focus on social interaction rather than tasks.
b. Age at which independence is expected.
c. Regarding toys as entertainment rather than education.

The behavioral responses of both groups to nonverbal tasks were essentially the same, but these differences were noted:

a. Puerto Rican children were less likely to attempt the task (introduced by a Spanish-speaking testor).
b. Puerto Rican children were less likely to verbalize their response.
c. Puerto Rican children were much more likely to "work" on nonverbal tasks rather than on verbal ones. (Anglo children responded about the same to both.)

There is solid evidence that the Puerto Rican children attending Spanish Harlem day care centers are just as intelligent as children of other ethnic groups (Hertzig, et al 1968, using Draw-a-Man and Spanish directions), but they show high resistance to taking the test. When compared with Chinese children, Puerto Ricans react more strongly to test situations where threatened with possible failure, and they are less confident (Siu 1972).

It seems quite probable that even very young Puerto Rican children, for reasons of cultural conditioning and environmental experiences, bring different attitudes and reactions to educational contexts than children of other ethnic groups. If early childhood personnel are to meet their needs, relieve their anxieties, and develop their potentials, we need to know a great deal more about the positive experiences upon which to build.

There is little question that their Spanish language development is one of these strengths. Although most Puerto Rican parents want their children to learn English as a second language, Spanish is very solidly the language of the home. In Puerto Rico, Spanish is the dominant language in all domains, including the school. A large percentage of the population cannot be considered to know enough English to be classed as bilingual.

Although there are no published descriptions of language acquisition in Puerto Rico or Spanish Harlem, there has been extensive study of adult speech in the bilingual New York community (Fishman, et al 1971). A fairly early study of five-year-old speech in Spanish Harlem day care centers (Anastasi and de Jésus 1948) indicates that these children are using longer and more complex sentences than their Black and Anglo peers, but this needs replication and extension in a current psycholinguistic framework.

The English spoken by Puerto Rican children has been described by Williams (1972) and Wolfram (1972). The latter, studying the

speech of second generation bilinguals in New York, reports there is significant interference from Black English. This is an interesting sociolinguistic phenomenon which indicates not only language contact, but probable attitudinal factors at work.

A strong language shift towards English has been observed among mainland Puerto Ricans, but this is a trend that may well be reversed. Given Puerto Rican attitudes, experiences, and child-rearing practices, and the positive U.S. position toward education in two languages, a stable bilingualism may be cultivated in Puerto Rican children for some time to come.

3. Indian children.*

For more than a century one of the heaviest stones in the "white man's burden" has been the education of American Indian children. The main purpose of the school has been assimilation, whether the methods were coercive or persuasive. Indian education was effected to alienate children from their own people. The use of Indian languages was forbidden and English was imposed as the sole medium of instruction.

In the 1880's, the Commissioner of Indian Affairs reported:

> The first step to be taken toward civilization, toward teaching the Indian the mischief and folly of continuing in their barbarous practices, is to teach him the English language. . . . we must remove the stumbling-blocks of hereditary customs and manners, and of those language is one of the most important (Brewton 1968).

Assimilation to the American way of life is still considered by many to be the primary goal of Indian education, although the clause is now often added, "while retaining Indian identity". There is less intolerence of the use of Indian languages now than formerly, but we still find many signs that teachers and administrators are not completely sympathetic toward Indian languages, discouraging, if not actually forbidding them in the school.

This educational system has been grossly ineffective, as judged from the high degree of absenteeism, academic retardation, and dropouts. Many reasons for this failure have been offered. We are all familiar with these reasons which have been repeated in nearly every research report on American Indian children which has been published in recent years. However, a careful look at the statistics in some of these same reports shows that these reasons are far less well supported than has been supposed, and that indeed a very different situation is often the case.

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*This section is based largely on "Linguistic and Attitudinal Correlates in Indian Education" by Muriel R. Saville. Additional information can be found in "Indian Students" by Nancy Modiano (Appendix C).

We are told that Indian parents are apathetic toward formal education, and that children's home environment is not supportive of the school, but 76% of the high school students in one study reported that members of their families are interested in college work, and 57% reported that their fathers like to read at home (Bass 1969).

We are told that Indian students are "shy" and "lazy". Such reports are based on the observations of experienced teachers working with diverse tribes. Apaches are also reported to be "hostile", "mean", and "dumb", Ute children are "undependable", "uncooperative", and "inattentive", Pomos "lack interest and incentive for education". There is no research to support the validity of such stereotypes, but their existence is well documented. The most common attitude is one of condescension--often well-meant, but always critical. According to the Coleman report, approximately one fourth of all elementary and secondary school teachers of Indian students indicate that they would prefer not to be teaching Indians.

We are told Indians are mentally deficient, despite psychological evidence to the contrary. Although scores on specific tests will vary, intelligence fits a normal distribution in all ethnic groups and is comparable from group to group. Differences in IQ, therefore, cannot explain the failure of the schools to teach Indian children, but the dominant culture's negative stereotype that the Indian really is mentally inferior may be a partial explanation since it affects teachers' expectations.

We are told that Indians have a low self-concept. The Coleman report indicates that the pupil attitude factor has a stronger relation to achievement than all the "school" factors together, and that Indian students in the 12th grade have the lowest self-concept of all minority groups tested. These data and similar interpretations of the Havighurst study (1955) have been widely accepted, but should be examined for ethnocentric bias. The low self-concept is deduced largely from students' feelings that they have little or no control over their environment. Many Indian cultures do not believe that actively controlling natural forces is desirable, or even reasonable. This research does not seem to take into account Indian perception of what constitutes a positive self-concept, but rather evaluates the Indian self-concept in terms of white, mainstream values.

We are also told that Indians are unable to adapt to the white man's culture. In fact, the history of most American Indians has been a continuing process of adaptation to new people and new environments. The vast majority have accepted our family structure, our form of government, and our religion. Many have adopted our language to the extent of losing the use of their own. Although almost 300 distinct American Indian languages and dialects are still spoken in the United States (including Alaska), approximately 60% of these now have fewer than 100 speakers and are in imminent danger of extinction.

Finally, we are told that the Indians' failure to acquire necessary competence in English is responsible for their academic failure. It is, of course, difficult for proponents of this argument to explain why even in Indian communities where only English is spoken there remains the prevasive problem of low achievement and high dropout rate.

Most research on Indian children has been carried out by anthropological observers who live in a community for often a year or more, describe the society's structure, values, and roles, record behavioral data which indicate child-rearing practices and other common phenomena, and collect information on ceremonial functions. (A professional joke in this field is that the typical Navajo family is composed of five people: a father, a mother, two children, and an anthropologist.) Although there is no foolproof safeguard against biased observers any more than there is against biased tests and questionnaires--and we should always look critically at generalizations based on either--anthropologists have provided considerable relevant information.

Few pronouncements can be made about "Indian children" as a group, since the many tribes maintaining their identity in the United States are very heterogeneous with regard to language, culture, and even physical (racial) traits. There are, however, a few social values and practices that are quite wide-spread among the various Indian communities.

The concept of autonomy, or individual right, has been traditionally valued by Native American tribes of the Southwest, Plains, and Eastern Woodlands (e.g. Navajo, Cheyenne, Sioux,and Iroquois). Their nineteenth century Anglo conquerors could never understand why one "chief" could not commit all of "his people" to a treaty or a single course of action, and educators in this century have despaired over parents who respected the right of children to decide whether or not they wanted to attend school. These same groups decided on joint action by consensus, with majority rule an alien concept imposed more or less successfully from the outside.

Child-rearing practices are often very lenient when compared to Anglo standards, with little or no physical punishment used. Children are commonly disciplined by teasing, ridicule, or fear (as with Hopi Kachinas). Their learning of physical tasks is more through observation than verbal instruction, but many social and religious lessons are taught through stories. (A number of studies suggest that the visual perception and visual memory of Indian children raised in these groups are much higher than that of their Anglo age-mates: Kleinfeld 1970, Lombardi 1970, Cazden and John, in CAL 1968.)

The verbal dimension causes much of the conflict Indian children experience with Anglo adults. Anglos, on the one hand, assault Indian language conventions through ignorance or negative attitudes. In return, part of the bases for conflict rests on the Indian children's misunderstanding of the sociolinguistic factors involved in speaking English, a completely neglected component in the teaching of English

as a second language. These factors include purposes and means of learning, expectations regarding linguistic behavior in encounter situations, and attitudes toward language use.

Communicative conflict may begin on the first day of school for an Indian child. The school setting is strange, the buildings and furnishings often unlike any he has known. Perhaps he does not understand English, and even if he understands the surface structures of the language, he may not be familiar with the way it is used. In the first place, the strange teacher talks to him right away, and it may be his custom to keep silence initially with unfamiliar people and situations. He would then not respond verbally, following the social rules he has learned, and thus would fulfill the teacher's stereotype of "shy" and "unresponsive".

When the first question the teacher asks is, "What is your name?", she creates an additional dimension of cultural conflict if the child is from one of the many groups that do not believe in saying their own name. She is asking the child to violate a religious taboo. If the child is Navajo, for instance, she violates additional taboos if she talks about or depicts a bear in the classroom, or tells stories about some of the other hibernating animals before they are asleep. Her normal voice projection level may frighten the Navajo child, who often interprets this as anger. (Conversely, his low voice level contributes to the erroneous image of Navajo children as shy.) The eye contact expected or even demanded by white teachers is not considered polite or respectful by Navajos, who avoid looking directly at the person they are addressing.

This catalogue of differences can continue, with each new dimension explaining some of the conflicts between Indians and whites in the areas of education (and politics). Since the beginnings, we have paid little attention to cultural differences among the Indian tribes, to differences in value systems, and in learning styles. We have never accepted, nor even understood, Indian children. It should surprise none of us that we have failed to educate the vast majority.

In the past, the Indians who did succeed had to learn in forms that we imposed. There is a strong counter-movement now to return control of Indian education to Indian communities (see recommendations in CAL 1973). This also seems to be an inevitable direction for early childhood programs to follow. It will require the training of many Indian men and women to work in child development centers, and the sensitizing of other personnel to the goals and values each community has for its children, to fulfill the expected need.

Because the extinction of many Indian languages is such a concern to Native Americans, where their children are still learning to speak the ancestral languages, early childhood personnel should be additionally required to understand and speak them, too.

VII. IMPLICATIONS FOR EARLY CHILDHOOD PROGRAM DEVELOPMENT

Knowing what is known (and what is not known) about bilingual children has important implications for four phases of early childhood program development: research, specification of competencies for the Child Development Associate, personnel training, and selection and organization of curricula.

1. Research needs.

The negative prognosis for most bilingual children which was put forth in the Introduction to this report cannot be retracted until we have answers to some of our many questions, including:

a. What are the unique learning experiences of children in diverse cultures which can be used as a base and means for further development?

b. What differences between home and school make a difference in linguistic and cognitive development?

c. What constitutes a positive self-concept for children in each cultural community and how can it be fostered?

d. Which adult behaviors interfere with the normal developmental pattern in children from different cultures, and which enhance it?

e. How can children learn to express themselves in a second language and culture without experiencing interference between the two?

f. To what extent do nutritional and other factors arising out of socioeconomic differences affect learning potential (and values)?

g. How can negative attitudes and expectations be changed?

2. Specification of competencies.

Because of the complex factors that influence the development of bilingual children, each CDA should:

a. Understand the nature of language and the socially and psychologically identifying significance of language differences.

b. Be able to communicate effectively in the languages, and within the cultures, of both the home from which the children come and the school for which they should be prepared.

c. Recognize the differences between these systems and both the potential conflicts and the opportunities they may create for children.

d. Understand the rate and sequence of linguistic development in the children's first and second languages, including
    1) Group and individual variations within the "normal" range.
    2) Their interrelationships with cognitive development and socialization.

e. Be able to assess children's linguistic development in specific contexts and be able to interpret this information to other staff or consultants.

f. Know methods and possess skills for adding the necessary features of school language and culture to the child's experience and understanding without endangering his concept of himself, his home, or his community.

g. Understand and make provisions for culturally determined and differing concepts of
    1) What order is.
    2) Acceptable dimensions of action and noise.
    3) Perspectives on time and space.

h. Know which culturally determined concepts the children bring with them regarding
    1) The nature of work and play.
    2) Appropriate expectancies and role behavior (specific to culture, age, and sex).
    3) Different styles of coping and learning.

i. Demonstrate respect for the child's own cultural constraints on behavior.

j. Know what a positive self-concept entails within specific cultures.

k. Understand the culture-specific expectations and values of the children's family and community.

l. Demonstrate ability to acquire relevant culture-specific information from children and their parents.

m. Understand how information is transmitted formally and informally in the community.

n. Understand the ways order is maintained in adult-child relationships in his family and community--how the child is being socialized and enculturated.

o. Know how decorum is maintained--what sanctions are used, and by whom. (It is particularly important to know which control measures are perceived as acts of hostility, and which of love.)

p. Recognize the potential biases of existing tests of intelligence, language and concept development, or "readiness", for linguistic and culturally diverse children.

q. Be able to use all information listed above in structuring the learning and social environment of children in order to foster cognitive and linguistic development through emotionally rewarding experiences.

3. Personnel training.

The following kinds of activities should be included in training programs for CDAs who do not already possess these competencies:

a. Cultural sensitivity sessions led by experts in this field.

b. Language classes to learn the speech of the community.

c. Guided reading, programmed instruction, or more formal training on the nature of language and first and second language acquisition.

d. Extensive listening to tape recordings of children from all linguistic backgrounds and stages of development to be encountered.

e. Guided information-gathering trips into the children's home communities to progressively
   1) Observe.
   2) Ask questions.
   3) Test interaction techniques and reactions.
   4) Participate in a community activity relating to children.

f. Practice assuming the role of a parent in different cultural groups.

g. Preparation of behavioral profiles of culturally diverse children observed in centers or on video tape, objectively describing their language competence, their non-linguistic interaction techniques, and their styles of coping and learning.

h. Workshops in methods for structuring the learning and social environment on the children's existing linguistic and cultural base.

i. Directed experience in centers with linguistically and culturally diverse children.

4. Selection and organization of curricula.

Definitive statements about "the best possible" program for young bilingual children cannot be made without a great deal more research, evaluation, and experience. In light of what we do know, however, some generalizations can be made:

a. All bilingual children, whether rich or severely impoverished, can benefit from language enrichment experiences. No normal child from any cultural or social group lacks a well-developed linguistic system, and no program should be based on the assumption that children from any group lack a language.

b. The language and culture of the center should be compatible with that of the child's home, allowing him to develop a consistent self-identity, a secure self-image. New elements should of course be added to the child's experience, but these should be selected and presented to avoid conflict.

c. A positive self-image can be most surely fostered in a situation which emphasizes acceptance of the child's native speech and avoids depreciation of it and his native cultural values.

d. Second language development is most enhanced and facilitated when it occurs in meaningful communication contexts, and under positive emotional circumstances.

e. Many of the "problems" of bilingual children are not theirs, but are caused by failures of adults (even from their own social group) who evaluate them in terms of expectations of the majority culture.

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Three criteria were used for the selection of items for this topical bibliography:

1. They would be recommended by this author as reliable resources.
2. They are readily accessible in published form or on microfiche through the ERIC reproduction services.
3. They do not require much prior exposure to linguistics or anthropology.

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APPENDICES

APPENDIX A

THE MEXICAN-AMERICAN PRESCHOOL CHILD: A REPORT ON CURRENT RESEARCH

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This document is an overview of current research on the Mexican-American preschool child (ages 3-6). It focuses on research that may have relevance to educational concerns.

It can be safely stated that little serious research has been conducted on the Mexican-American preschool child to date. The available literature on Mexican-Americans in general is primarily descriptive and subjective. There are two major areas of research effort: measurement of intelligence and descriptions of problems dealing with the apparent failure of the Mexican-American child in school.

What serious studies do exist, with few exceptions, suffer from one glaring fault. This fault is the false presupposition that all Mexican-Americans are the same (in general, poor, bilingual, and rural or recently urbanized). To ignore the heterogeneous nature of the Mexican-American population in the United States is to render a great deal of the serious research rather questionable. Probably the best discussion of this particular problem is that by Fernando Penalosa. As he states:

> It may safely be asserted that the concept or construct "Mexican-American population" as ordinarily found in the sociological literature frequently manifests a significant gap with empirical reality.
>
> The most often used, and undoubtedly the best, approximation to the parameters of this population relies on a count of the Spanish-surname population, particularly in the states of the Southwest. But while the term "Spanish-surname population"is operationally definable, the terms "Mexican-American population" or "Mexican-American community" are not so easily controlled. Existentially there is no Mexican-American community as such, nor is there such a "thing" as Mexican-American culture. The group is fragmentized socially, culturally, ideologically, and organizationally. It is characterized by extremely important social-class, regional, and rural-urban differences (Penalosa 1967:404-5).

These differences are rarely taken into account when discussing Mexican-American children. It is true that a certain subset of Americans can be defined by virtue of having one or more ancestors who lived in Mexico, but it is not clear just what else this subset might have in common. It is certainly not true that all Spanish-surname or Americans of Mexican descent speak Spanish or are bilingual.

There are no reliable statistics as to the proportion of Mexican-Americans (however defined) who speak Spanish or are bilingual. It certainly seems to be the case the Mexican-Americans are assimilating in many parts of the Southwest. Even in what is usually considered a conservative area of the Southwest such as New Mexico, it is not unusual to find young people who do not speak Spanish yet who profess being chicano. Clearly much demographic information correlated with linguistic information is crucially needed.

In reviewing the available literature, an attempt was made to be exhaustive. However, due to limitations of time, not all pertinent documents were reviewed. Consequently, the following discussions center on those documents that the reviewer had access to and which, in the opinion of the reviewer, contain serious studies of some aspect of the Mexican-American preschool child. The literature reviewed was limited to that from around 1950 to date. The age limits were ages 3 to 6. Articles that merely express a series of unsubstantiated statements are deliberately ignored. The bibliography consists of two parts. Part I is a listing of those documents that were reviewed and contain serious studies; Part II is a listing of all the documents that appear to contain useful information but were not reviewed due to inaccessibility. The absence of a certain document does not necessarily mean that it is insignificant. It might well mean that the reviewer is not aware of its existence. The literature in psychology and sociology is vast. Unfortunately Psychological Abstracts and Sociological Abstracts have not cross-indexed Mexican-Americans as a separate category. (As a sign of the times, it should be noted that Psychological Abstracts started cross-indexing Mexican-Americans in 1973; Sociological Abstracts still cross-indexes Mexican-American as part of the category Mexicans.)

It should be noted that most of the literature that purports to describe the cultural background of the Mexican-Americans is essentially unsubstantiated (other than the mere historical). As an example of this type of description, take Farmer (1968). In the section labeled "The culture and the Family," Farmer states:

> ...these states [Southwestern], so far as the Mexican-American is concerned, are mainly characterized by a rural life--folk culture. In urban culture new ideas are welcomed, people do what their neighbors do, rather than what their fathers have always done....
>
> The components of Hispanic culture are the following:
> 1. Individual autonomy within the boundaries created by his society.
> 2. Orientation toward persons rather than toward ideas or abstractions--the concrete rather than the abstract.
> 3. They were isolated geographically and therefore culturally from the mainstream of western civilization (which is growing rapidly on the east coast).... (Farmer 1968:22-23)

Farmer describes a society that may well have existed in the late 1700's in New Mexico and/or present-day rural Mexico, but what relevance does this have to young Mexican-Americans living in a large urban area like Los Angeles or Phoenix? Or take unsubstantiated statements like the following:

> American culture is based on the future--future oriented. On the other hand, the Mexican [sic] culture is present oriented. The cultural background of persons of Mexican descent is not always based on the future, but on the present (Farmer 1968:23).

This is a rather silly view of cultures, in the opinion of the reviewer. If Mexican culture is so present oriented, how is it that the insurance industry in Mexico is growing at a rate of about 21% per annum (according to the Boletín del Banco Nacional de México, March 1973)?

The notion that Mexican-Americans are essentially an agrarian people goes back to a study by Florence Kluckhohn of a rural New Mexican village in 1936. Whatever the validity of the Kluckhohn study might be, the ideas there expressed have been generalized into a characteristic of all Mexican-Americans. Farmer repeats these generalizations as dogma. It is rather tragic when educators get these stereotypical descriptions as some sort of fact. For example, the Curriculum Guide for the Gallup-McKinley Schools (New Mexico) claims that the Mexican-American 'may be said to have accepted these general patterns' (in contrast to Anglo-American 'cultural patterns'):

Anglo	Mexican-American
mastery over nature	subjugation to nature
future time orientation	present time orientation
success oriented	be satisfied with the present
work hard to achieve	work to satisfy present needs
individuality	obedience

These so-called 'cultural values' have been incorporated into the folklore of educators (and sociologists, psychologists, etc.).

The truth of the matter is that little is known of the cultural values of Mexican-Americans (ill-defined as the group might be). It is not clear just how different lower-class Mexican-Americans are from other lower-class Americans. The incorporation of Mexican-Americans into the mainstream of American life seems to follow a definite progression. First the group is considered foreign. Note that much of the scholarly literature in the 1920's and 1930's refers to this group simply as Mexican. In the 1940's, the group is virtually ignored. In the 1950's and the 1960's the group is recognized, but in stereotype form. Finally, in the 1970's there is recognition of the diversity of the group.

The following literature survey is arranged by major topics. Within each topic, the documents surveyed will be presented in chronological order.

I. INTELLIGENCE MEASUREMENT

Most of the literature concerning Mexican-Americans from 1950 to 1961 is summarized in Darcy (1963). In essence, Darcy states:

> studies of Spanish-English bilinguals ... have indicated that bilingual subjects received lower scores on verbal tests of intelligence than on nonverbal intelligence tests. In some studies the translation of the directions of intelligence tests from English to Spanish did not improve the test scores of bilingual subjects, while in another investigation, in which the subjects had received several years of formal education in English and had a poor knowledge of Spanish, mean scores on the English version of the intelligence test were significantly higher than were mean scores on the Spanish translation of the test (Keston & Jiminez 1954).

Most of the documentation after 1963 involving intelligence measurement and Mexican-Americans seems to be more concerned with testing the testing-instrument than in describing the subjects. That is, since Mexican-Americans consistently do worse as a group than the Anglo-American group, something must be wrong with the test.

1. T. Quijano, "A cross-culture study of sex differences among first-graders on a verbal test," 1968.

This document describes an experiment on thirty Mexican-American and Mexican six-year-olds. The goal was to see if there were any significant differences in the results of a test of verbal ability between sexes. The instrument used was the Van Alstyne Picture Vocabulary Test. The test was translated into standard Spanish and what the experimenter called "Tex-Mex". The results of the experiment were that there were no significant differences between sexes on this test of verbal ability.

This experiment is interesting in that recognition is made of the fact that the Spanish spoken in Texas may be different from that spoken in Mexico. However, what the experimenter labels Tex-Mex is simply standard Spanish with a few English borrowings thrown in (e.g., mecha (English 'match') instead of standard Spanish 'fósforo'). The "Tex-Mex" version of the test was given to children in Laredo, Texas, a border city heavily influenced by Mexican culture. Although the experimenter claims that there are no verbal testing instruments available in Spanish, it is unlikely that the "Tex-Mex" version could be used outside

of the immediate border area (e.g., Los Angeles or Albuquerque). The experiment is interesting only in that this is the first attempt to provide a measuring instrument for Mexican-Americans. However, it does not seem that it would work out successfully. The results of the experiment may be interesting if true. The experiment does not give a convincing argument to conclude that there is no difference in verbal ability between sexes for Mexican-Americans at age six. The sample base is too small (and not specified).

2. R. Karabinus and M. Hurt, Jr. "The Van Alstyne Picture Vocabulary Test used with six-year-old Mexican-American children," 1969.

Two groups of six-year-old Mexican-American children were tested in 1965 and 1966 (N=535) using the Van Alstyne Picture Vocabulary Test to measure intelligence. No demographic information is given on the subjects other than the statement that they were disadvantaged. The results indicate that the Van Alstyne Picture Vocabulary Test is reliable and valid for the measurement of mental ability of culturally disadvantaged Mexican-American six-year-olds. Comparison of the results with data in the test manual (of the Van Alstyne Picture Vocabulary Test) based on 93 six-year-old children selected from the general population showed all reliability coefficients calculated with the scores of the subjects higher than .71 (Spearman-Brown) found in the general norming population. This document tells little about Mexican-American children, but does show that at least one measuring instrument exists that may be free from cultural bias.

3. T. Christiansen and G. Livermore, "A comparison of Anglo-American and Spanish-American children on the WISC," 1970.

The purpose of this study was to compare the performance of lower and middle class Anglo-American with lower and middle class Spanish-American subjects on the Wechsler Intelligence Scale for Children (WISC). The subjects for the study were 92 Anglo-American and Spanish-American children 13 to 14 years of age. The subjects were classified, on the basis of social class and ethnic origin, into four groups of 23 children each. The data show middle class children in both ethnic groups scored significantly higher than lower class children on each of the WISC measures examined in the study. On those measures where ethnic origin was a factor, Anglo-Americans scored significantly higher than Spanish-Americans. The results showed that:

> ...general intelligence and the development of verbal abilities, including the ability to use acquired verbal skills in new situations, are related to ethnic origin and social class. Nonverbal abilities, perceptual organization ability, and the ability to concentrate on a task were found to relate only to S's membership in a particular social class (pp. 12-13).

THE RELATIONSHIP OF SOCIAL CLASS AND ETHNIC ORIGIN TO SCORES ON THE WISC (p. 12)

	Group means					
	Spanish-Am. lower class	Angl-Am. lower class	Spanish-Am. middle cl.	Anglo-Am. middle cl.	F values ethnic orig.	social class
WISC measures						
Full scale IQ	91	99	111	116	12.93*	95.82*
Verbal scale IQ	89	95	111	120	12.66*	82.89*
Performance scale IQ	96	102	108	109	3.60[a]	28.86*
Verbal comprehension	8.1	10.0	12.2	13.9	12.00*	30.99*
Freedom from distractibility	8.8	8.6	11.7	11.0	.88[a]	32.70*
Perceptual organization	9.5	10.3	11.4	12.1	3.02[a]	16.43*

Note: [a]= not significant
*Significant at the .01 level.

The significance of this study lies in the fact that it is one of the few that observes Mexican-Americans in terms of different social classes (although the subjects are labeled Spanish-Americans, their location is not specified, and the sociological parameters used to classify the children into social classes are not discussed). Although the age group is 13 and 14 years of age, it does give a hint as to what might be expected if other age groups were tested. Although Mexican-Americans still perform poorer as a group than Anglo-Americans on the WISC (possibly the WISC is measuring linguistic ability in English), it is significant that the middle class Mexican-American group performs better than the lower class Anglo-American group.

4. E. Swanson and R. DeBlassie, "Interpreter effects on the WISC performance of first grade Mexican-American children," 1971.

The purpose of this study was to determine the effect of the use of an interpreter in the administration of an individual intelligence test on the performance of a group of Mexican-American bilingual children. Forty one first grade children between the ages of 6 years 8 months and 7 years 11 months from two elementary schools in a rural school system in central New Mexico were selected as subjects. The California Test of Mental Maturity was administered to all subjects who were then ranked according to Total IQ score results. Alternate subjects were then assigned to one of two groups--an experimental group (N=21) or a control group (N=20). The Experimental Group was administered the WISC by one of the researchers with the use of an interpreter. The children were encouraged to answer in Spanish if they wished. The control group was administered the WISC, but entirely in English.

The results are as follow (p.174):

Means, Standard Deviations, and t's contrasting the Experimental and Control Groups on the WISC

	Experimental (N=19)		Control (N=18)		
WISC IQ'S	M	SD	M	SD	t
Verbal	88.95	14.04	91.94	19.00	.85
Performance	101.42	15.63	103.44	15.66	.39
Full Scale	94.47	14.66	96.94	17.63	.46

The results show that the presence or absence of an interpreter does not result in statistically significant differences. Swanson and DeBlassie note that these results are in direct conflict with the research reported by Mycue (1968). Mycue had reported that a group of Mexican-American children had performed significantly better on the Language Facility Test when it was administered in both Spanish and English than when it was administered in English only (as reported in Swanson and DeBlassie, p. 174). The experimenters, however, urge caution in interpreting the results since the sample base is very small. They advise that further testing be undertaken.

It would appear that competence in English is higher than competence in Spanish for these subjects. That is, even if an interpreter is used, the level of competence is so much higher in English that the use of an interpreter would not allow the subject to significantly increase his level of performance on the WISC.

This agrees with the conclusions reached by Keston and Jiminez (1954). In administering an English and a Spanish version of the Stanford-Binet Intelligence Test (Forms L and M), they found that the subjects (50 Mexican-American fourth graders in Albuquerque) performed more poorly on the Spanish version than on the English one (the mean IQ on the Form M English version was 86.0, while the mean IQ on the Spanish Form L was 71.8). Keston and Jiminez relate this difference to the fact that the level of development in the English language used by the children tested was higher than that in the Spanish language they used. These children received their formal education in English, and since the Stanford-Binet reflects the educational achievement of children, it could be expected that higher scores would be obtained in the language which was more highly developed in formal aspects. It was the examiners' impression that these childrer had speech habits of preschool children in Spanish conversation. Hence it was suggested that the development of the Spanish language was brought practically to a standstill when the child entered school and began formal education in English. Thus Keston and Jiminez provide a hint as to why an interpreter would not result in any improvement in performance as noted by Swanson and DeBlassie.

5. T. Hickey, "Bilingualism and the measurement of intelligence and verbal learning ability," 1972.

This experimental study attempts to show that one widely used instrument is ineffectual for measuring bilinguals. The instrument is the Peabody Picture Vocabulary Test (PPVT). The results of the experiment show that the subjects (160 monolingual Anglo-Americans and 160 bilingual Mexican-Americans, age 4) that are bilingual encounter great difficulty in correctly identifying verbal noun concepts on the PPVT. Structural and idiomatic differences between English and Spanish were thought to be the source of the difficulty. This is significant in that the PPVT is constructed so as to preclude the conclusion that all preschoolers, bilingual or monolingual, might encounter a great deal of difficulty with verbal noun concepts. The author notes that one particular sequence has a picture of a waterfall and another picture shows a child falling off his skates. It is not clear (from the article) just what responses are expected, except that English is supposed to allow the same type of answer for both pictures, while Spanish requires two different responses. The author is not very specific as to why this should be the case, but he feels that semantic interference phenomena are at play and may result in an error for the bilingual child. No examples of typical responses are given, and no conclusion is reached. The author ends the summary by stating that more studies are necessary to determine just what the differences are that may exist between Spanish and English at the structural level. The author seems to be unaware that a rather large body of information already exists on this topic. The significance of this study appears to be that the PPVT may well be biased against the bilingual and perhaps should not be used with Mexican-Americans. Unfortunately the author does not seem to be familiar with linguistics, and consequently his findings cannot be re-interpreted to provide a more conclusive result.

II: LINGUISTIC DESCRIPTIONS

There are few descriptions of Mexican-American child language. The few studies that do exist appear to suffer from three general methodological limitations. These are: (1) the child's speech is described in the absence of a description of the speech spoken by adults that may be around him; (2) incipient bilinguals are not distinguished from functional bilinguals; (3) the focus is on the speech of bilinguals to the almost total exclusion of monolingual speech.

The first limitation results in difficulty in distinguishing developmental phenomena from dialectal features. For example, Lastra (1969) observes that East Los Angeles children frequently (usually?) have a labiodental fricative where standard Spanish has a bilabial fricative ([v] in place of [β]). In the absence of a description of adult speech in East Los Angeles, it would seem that [v] might be some type of developmental phenomenon. However, as

Phillips (1972) points out, the substitution of [v] for [β] is fairly common among adult speakers in Los Angeles. Consequently, this particular contrast with standard Spanish is not an instance of developmental phenomena. Lastra points out that the children observed in her study also seem to have glottal stops between two consecutive vowels [mi'ermano]. Since it probably is not the case that adult speakers of Spanish (in East Los Angeles) usually place glottal stops between vowels, this is very likely to be a developmental characteristic. Without data on adult speech, there is no way to determine this.

The second limitation results in confusing what a child does when he is learning a second language with what he does when he has already internalized two sets of grammatical rules. Learning interferences may not be the same as bilingual code interferences. It would be unlikely that a child learning English would say in Spanish "mi tío's casa" (my uncle's house); a functional bilingual might very well say this as an instance of code-interference (as reported by Lastra).

The third limitation results in trying to describe speech that is most variable of all. A functional bilingual may produce instances of code-interference for any number of reasons--many of a nonlinguistic nature. This concern with the most difficult of speech to describe (because of the inherent instability---the bilingual can mix his codes at will) has resulted in no descriptions of the English spoken by monolingual Mexican-American children. It may be the case that monolingual English-speaking Mexican-American children learn a kind of Hispanicized English (as a result of diachronic processes), but at this time one can only guess what kind of English it might be. Killian (1971) has observed that monolingual Mexican-American children do not perform as well on intelligence tests as Anglo-American children (at age 6), but appear to perform better than bilingual Mexican-American children. It may well be the case that the English spoken by the monolingual Mexican-American children is very different from that spoken by the Anglo-American children. Unfortunately no information exists concerning this problem.

Descriptions of how a Spanish-speaking child learns his language (along developmental lines) will be crucial information for describing how a Mexican-American child develops linguistically (assuming that he is to be bilingual).

6. Y. Lastra, "El hablar y la educación de niños de origen mexicano en Los Angeles," 1969.

Lastra investigated the speech of 65 children in East Los Angeles, ages ranging from 5 to 9. The Spanish and the English of these children was observed. 20% of the children were first generation (born in Mexico); 54% were second generation (parent or parents born in Mexico); 25% were third generation (grandparent(s) born in Mexico). Six children spoke what the interviewer considered standard Spanish. These children were

all second generation. Standard speech did not appear to be related to the occupation of the father.

Lastra observes that the majority of the children speak a dialect of Spanish similar to that of lower class speakers of Mexico, although sprinkled with interferences from English. All understand the standard dialect although the children lack vocabulary that would ordinarily be learned in school (mathematics, geography, etc.).

Most of the features that Lastra describes are simply differences between local Los Angeles Spanish and standard Spanish. Among those features which may be developmental in nature are the following:

Phonological: Use of a retroflex /r/ before a consonant: [kárne], [enférmo].
Multiple R overly trilled (hypercorrection?).
The multiple R becomes a tap: ariba] instead of [arriba].
Voicing of Sp. /s/ between vowels: José [hozé].
Glottal stop between two consecutive vowels and in initial position before a vowel: [mi'ermano], ['ermano].
/g/ remains a stop between vowels: pega [pega], amiga [amíga].

Syntactic: Absence of usted (exclusive use of tu).
The use of the article before proper names: la Cecilia, el James.
The use of the form mi as direct object: mi pegan, mi lo compró ["They hit me","He bought it from me"].

Lastra also describes the English used by these children. Among the things she notes are the following:

Phonological: Intonation similar to that of Spanish:
I want to be[2] a football[2] player[1] (instead of 231).
B fricative [oβer] "over" [ayβli] "I live".
Centralization of the lower front vowel: [lamp] "lamp".

Syntactic: Mislocated adverbs of time: "Sometimes at night we play games."
Repetition of the subject: "My mother, she doesn't have a job."
Double negatives: "Mrs. E is not teaching no more."
Lack of agreement: "Does Bertha and Sandra play with you at home?"
Past instead of infinitive: "I used to threw the ball."
"I haven't gave them a name yet."
Confusion of the gerundive with the infinitive:
"I like to doing is math."

Although the data are not presented systematically, nor is any information given about what is being said at what age (the difference between 5 and 9 would seem to be quite great), this study is significant since it is the only study available on the speech of young Mexican-American children in Los Angeles.

7. D. Natalicio and F. Williams, "Repetition as an oral language assessment technique," 1971.

The purpose of this study is to assess the degree to which sentence imitations by Black and Mexican-American children (K-2) could be used as a basis for language evaluation. A panel of "experts" was commissioned to assess the sentence imitations. Since no clear criteria were established for the panel, it is very difficult to judge the efficacy of the project. However, incidental to the purposes of the project, the authors do give some hints as to the speech of the children. Ten Mexican-American children (6-8 years of age) were selected from 750 subjects in San Antonio. No further demographic information is given. The subjects were to repeat a series of sentences both in Spanish and English. Following is a list of the types of difficulties the children had:

English:
- Difficulty with the prepositions on, in, and at.
- /š/ and /č/ were 'confused'.
- Devoicing of /z/ to [s].
- Third person ending /-z/, /-s/, /-ɨz/ deleted on repetition.
- Difficulties with /r/ and /l/ (liquids; also in Spanish).
- No aspiration of initial voiceless stops.
- Schwa replaced by [a].
- Substitution of you, your for his, her, their.
- Substitution of one for a(n) (David has one brush for his hair).

Spanish:
- 'Misuse' of reflexive se: 'Los ninos [se] acuestan', 'David se puede abotonarse la camisa', 'David se puede abotonar la camisa' (instead of 'David puede abotonarse la camisa').
- /l/ substitutes for /r/ in final position: [tlabaxal] 'trabajar'.
- Reduction of /ye/ and /yo/ diphthongs: tene (for 'tiene'). meto (for 'metio').
- /-y-/ substituted for /-d-/ and /-r-/: gloya (for 'gloria'). ayuya (for 'avuda'). yentes ('dientes').
- Deletion of redundant dative object:
  Mama ayuda a Gloria. (Mama le ayuda a Gloria.)
  El jabón se metió en los ojos.
  (St. Sp.: El jabon se le metio en los ojos.)
- Preposition a replaced by pa(ra): Ellos van pa la escuela hoy.
- Preposition en replaced by a: Se le metió a los ojos.

The authors certainly cannot be faulted for presenting only tid-bits of data, since this was not their intent.

8. R. Serrano, "The language of the four-year-old Chicano," 1971.

The author claims that "little is known about Chicano four-year old language." His article (based on samples of 14 subjects) does not add much to our knowledge. The article is highly inconclusive, but does give some additional bits of data. There is no demographic information on the subjects (not even their locale). It is not clear whether the subjects are still learning English or have already acquired a degree of competence. Most of the samples would be expected from someone learning English (/e/ and /æ/ merger, etc.). The most interesting point Serrano makes is that his subjects do not distinguish between tell me and ask me (this was first noted by Carol Chomsky).

9. E. Carrow, "Comprehension of English and Spanish by preschool Mexican-American children," 1971.

The purposes of this study were:

(1) to compare the comprehension of English with that of Spanish in a group of preschool Mexican-American children;
(2) to analyze the developmental sequences of the two languages in these children;
(3) to compare these developmental sequences of both languages in the children under study with the performance of a group of English-speaking children reported earlier.

Ninety-nine children with Mexican-American surnames, ages 3-10 to 6-9 were tested in Houston. Each child was administered the Auditory Test for Language Comprehension---an instrument that allows the assessment of oral language comprehension without requiring language expression from the child.

The interesting part of the study is the data showing when certain linguistic features are first understood (at the 60% level, i.e., 60% or more of the children in a given age group comprehended the test item). Among the most significant findings (significant because of syntactic problems; most of the test items involve lexical items) are the following:

> At no age level up to 6-0 years did as many as 60% of the children understand in English or Spanish the pronouns 'he' ('el'), "her" ("de ella") and "his" ("de el") as contrasted with "she" ("ella"), "his" ("de el"), and "her" ("de ella"), respectively, although these contrasts were comprehended by 60% of the control children [Anglo-American] at 4-0.
>
> Sixty percent of the experimental group at all age levels the preposition "on" ("sobre"). There was a year's delay in comprehension of "under" ("de bajo de") and "in" ("en"), as compared with controls. Two prepositions that were considerably delayed in English, "by" ("al lado de") and "in front of" ("en frente de") were equally delayed in Spanish.

> The controls understood "is not" and "isn't" at 3-0 and 3-6 respectively, while the children in this study did not comprehend these negatives until 6-0 in English... The only tense contrast the experimental group was able to comprehend in either language was the present progressive. The control group understood the past tense at 4-0 years, the future at 4-6, and the past progressive at 6-0.
>
> The demonstratives "that" ("aquel") and "these" ("estos") were comprehended at all ages in English, but not until 6-0 in Spanish. The interrogative "who" ("quien") was not understood in either language by 60% of the children, although the control group understood it at 3-0.
>
> Structures of predication and modification involving complex syntactic relationships (complex sentence with independent clause and dependent adjectival clause, complex imperative sentence with conditional clause, etc.) were comprehended at the same age as the control children [age not given]. The most difficult structural contrasts were those of direct-indirect object and active-passive voice.
>
> The items which ranked within the last ten in both languages, that is, those understood by fewest of all the children, were the lexical items "few" ("pocos"), "alike" ("igual"), "different" ("diferente"), ... and "pair" ("par") and the following structural items: "Neither the boy nor the girl is jumping" ("Ni el muchacho ni la muchacha está saltando"), (negative); "Who is by the table?" ("Quién está al lado de la mesa?") and "The man is hit by the boy" ("El hombre es golpeado por el muchacho"). All the previous items except for "pair" (4-0) and "who" (3-0) were passed at 6-0 and 7-0 by the controls.

The implications of the study, as seen by the author, are (1) the Mexican-American children are a very heterogeneous group; (2) among preschool children from a low socio-economic level in Houston, the greater proportion understand English better than Spanish. It is probable that this fact would be even more pronounced among middle and upper class Mexican-American children; (3) in general both languages improve as the children become older.

The study concludes by stating that some of the major problems for these children seem to be in pronominal reference, negation, tense marker comprehension, adjectives, prepositions and pluralization.

This study is probably the most significant done so far on the Mexican-American preschool child. However, some of the language used in the test items is open to discussion. For example, the frequency of passive constructions are not the same for both Spanish and English.

The passive is rather rare in spoken Spanish. There is no reason to suspect that the passive construction would be comprehended by Spanish-speakers at the same time as English-speakers. Also note that some of the prepositions in Spanish are compound (al lado de) while in English they may be simple (by). This seems to introduce an additional factor of complexity.

10. R. Cornejo, "The acquisition of lexicon in the speech of bilingual children," 1973.

This is a study of five-year-old Mexican-American bilingual children. An analysis (actually an inventory) of the speech of 24 subjects is presented. The subjects were recorded in the lower Rio Grande Valley of Texas and in Austin. The speech samples were elicited in interviews with the use of visual aids.

There is an inventory of the most frequent lexical items for Spanish and English. These lists are compared to standard word-frequency counts with dismal results. There is a long list of samples of baby talk in Spanish (elicited from the subjects). There is also an inventory of samples of structural and lexical interference from English to Spanish. There is also brief mention of some of the phonological features appearing in the English speech of the subjects. Some of these are:

epenthetic e: store -- [estór]
reduction of CC#: diamond -- [dáymɨn]
elimination of the copula: that your car?
he a boy.
/θ/ -- [t]: three -- [triy]
/ð/ -- [d]: father -- [fadɨr]
/č/ -- [š̆]: chair -- [šer]

Cornejo reaches several conclusions:

(1) English is the dominant language of the subjects.
(2) Spanish is used at home but Spanish structure and phonology is influenced by English.
(3) There is a systematic pattern in language domains.
(4) There is interference from English to Spanish.
(5) The interference from Spanish to English is highly significant at the phonological level, but minor at the lexical and grammatical levels.
(6) The Spanish of these children is marked by "baby talk" which may imply arrested development.

The data-collecting efforts by Cornejo represent a strong commitment. Over 100 subjects were interviewed (the 24 subjects analyzed is a subset of the 100), and over 30 hours of recording made. In spite of this tremendous effort, the results are essentially trivial. For example, since much of the data was elicited by visual cues, the lexicon sample gathered represents limitations set up by the nature of the visual cue. Why compare the sample lexicons with lexical counts gathered from

literary sources (e.g., Thorndike's and Rodriguez')? Just whose speech is represented by the baby talk inventory? One child, 5, or ____? If any one child had all the features listed in the baby talk lexicon, would he be understood? There is no demographic information on the children (except for geographical origin). No contrast is made between the speech in the community (adult) with that of the children. Why is the elimination of certain final consonant clusters unique to these children (in English)? Is it not the case that most English-speakers delete /-d/ after a nasal before juncture in South Texas? This is a good example of a mish-mash of developmental phenomena and dialectal characteristics.

III: VARIA

11. A. Jensen, "Learning abilities in Mexican-American and Anglo-American children," 1961.

Mexican-American and Anglo-American fourth and sixth graders of different IQ levels were compared on a number of learning tasks consisting of immediate recall, serial learning and paired-associates learning of familiar and abstract objects. The results are that on the direct measures of learning ability used in the study, Anglo-American children of low IQ are slow learners as compared with Mexican-Americans of the same IQ. Mexican-Americans of above average IQ do not differ significantly in learning ability from Anglo-Americans of the same IQ. The study suggests that the majority of Mexican-Americans with low IQ's, at least as measured by the California Test of Mental Maturity, are actually quite normal in basic learning ability, though they may be poor in scholastic performance for other reasons. A low IQ in the Anglo-American group, on the other hand, is in most cases a valid indication of poor learning ability.

Jensen advises that most of the low IQ Mexican-Americans, not being basically slow learners, not be placed with Anglo-Americans of low IQs.

12. R.W. Henderson and C.B. Merritt, "Environmental backgrounds of Mexican-American children with different potentials for school success," 1968.

This study is an investigation of the extent to which a wide range of environmental stimuli are differentially present in the backgrounds of Mexican-American children who have, respectively, relatively high and relatively low potential for success in school. One group of 38 six-year-old Mexican-American children in Tucson were tested by the Goodenough-Harris Drawing Test and Van Alstyne Picture Vocabulary Test and had the highest scores on these tests. This group was designated high potential. The low potential group also consisted of Mexican-American six-year-olds (N=42) who had received the lowest scores on the two above mentioned tests. Trained interviewers employed an

interview schedule and a focused interview technique to secure ratings on 33 characteristics defining a set of nine environmental process variables. The mothers of the subjects received the interviews. The data indicate that children in the high potential group come from backgrounds that offer a greater variety of stimulating experiences than is available to most children in the low potential group. The children in the high potential group scored high in the vocabulary test. The low potential children come from an environment with many siblings. This suggests that mothers with many children have less time to interact with any particular child. The author feels that this might explain why so many Mexican-American children come to school with little linguistic ability in either Spanish or English.

13. R.J. Melaragno and G. Newark, "A pilot study to apply evaluation-revision procedures in first grade Mexican-American classrooms," 1968.

This article is concerned with testing a teaching technique called "evaluation-revision strategy." What is interesting, if true, is that the authors isolated a set of seventeen 'concept words' that first grade Mexican-American children appear to have trouble understanding when learning to read. Unfortunately, the authors only identify twelve of these words: top, bottom, alike, different, first, middle, last, under, over, underline, on, and above. The researchers mention that the children (no number) were tested for knowledge of these concepts in Spanish (with no indication as to how they were translated, nor of the results of the test). It is interesting to note that some of these words also occur in the Carrow study and caused problems to the children in that study.

14. Ruth Silverstein, "Risk-taking behavior in preschool children from three ethnic backgrounds," 1969.

This study was undertaken to examine the basis of the unresponsive classroom behavior noted with Mexican-American children. The subjects were 60 Negro children, 79 Mexican-American children, and 25 Anglo-American children 50-62 months in age. No other demographic information is provided. Two hypotheses are proposed:

H_1: risk-taking is related to ethnicity, and Mexican-American children take less risks than Negroes or Anglo-Americans;

H_2: if risk is related to reward, the Mexican-American child will still take less chances.

The children are given a risk-taking test. The results do not support the hypothesis that Mexican-American four-year-olds exhibit a more cautious risk-taking style than do Negro and Anglo-American children from the same SES group. When candy is rewarded in comparison to beads or praise (on the test), the Mexican-American preschool children exhibit more cautious behavior than the other groups. Since candy is a tangible object (and desirable), this suggests that the motive to avoid failure

seems to be operative for the Mexican-American child (the rationale is amply discussed in the document). The author concludes that the Anglo-American and Negro child is characterized by the problem-solving strategy of "achieving" while the Mexican-American child is characterized by the strategy of "not failing".

This experiment should be replicated with a larger sample base. If it can be shown that Mexican-American preschool children tend to be passive in the classroom because of this strategy of "not failing", then this would go far to explain why these children get "turned off" from school since due to linguistic problems, the scholastic "dice" are loaded against him.

15. M. C. Madsen and A. Shapira, "Cooperative and competitive behavior of urban Afro-American, Anglo-American, Mexican-American and Mexican village children," 1970.

This report discusses four experiments to examine the cooperative or competitive behavior of three U.S. ethnic groups and one Mexican group. The subjects for the first three experiments that tested the three U.S. ethnic groups numbered 144 and were in either second or third grade (ages 7-9). The children were divided into three even groups according to ethnic identity. The measuring instrument was a cooperation board, developed by Madsen. (The board involves pulling strings at each end of a box; cooperation is required of the subjects.) The results indicate that the three U.S. groups responded in a non-adaptive competitive manner over the four trials (in experiment I). The performance of the Mexican-American subjects, although competitive, was consistently less vigorous than the other two U.S. groups. The Mexican Village children were cooperative in their behavior and contrasted sharply with the U.S. groups (which includes the Mexican-American).

This document is interesting in that it shows that the urban Mexican-American child is very different from the rural village Mexican child. This should help in changing some of the stereotype image of the Mexican-American.

16. E. Hepner, "Self-concepts, values and needs of Mexican-American underachievers or (must the Mexican-American child adopt a self-concept that fits the American school?)" 1970.

This somewhat polemical article has a data base of 150 Mexican-American boys aged 9. It is not clear whether the data support the conclusions, but the conclusions are certainly interesting. Her conclusions are:

1. Contrary to stereotyped views, Mexican-American boys even underachieving in school, do not perceive themselves as more negative than their Anglo peers or their better-achieving Mexican-American peers.

2. Contrary to many educators' perceptions, Mexican-American boys, although underachieving in school, value grades and education, and do not consider themselves "dumb in school".
3. Differing again from other studies, this investigation found evidence that Mexican-American boys not only do not have lower occupational aspirations than their Anglo peers, but, in effect, evidenced higher occupational goals for themselves than the other groups with which they were compared.
4. Mexican-American pupils in this study appeared more self-accepting than their Anglo peers or their achieving Mexican-American peers. There were no noticeable discrepancies between their real and their ideal selves and therefore this is taken as another evidence of the lack of low self-esteem of these youngsters.
5. Mexican-American boys are more active than their Anglo peers.
6. Mexican-American boys aged 9-13 do not value "reading for its own sake"--a value featured in the typical American school. They also reject the American cultural value of "leadership".
7. Mexican-American boys do not feel they are as bright as their Anglo peers, and seem to have internalized and accepted the school's view of them with regard to intelligence---even when they are in reality as bright as the other boys.
8. Mexican-American underachievers are most significantly different in the areas compared in this study from Anglo-American boys observed---while Mexican-American achieving boys are more like their Anglo counterparts than their own ethnic peer group.

The reader should be warned that these conclusions are not warranted by the data (or lack thereof) presented in the article.

17. S. Wasserman, "Values of Mexican-American, Negro and Anglo blue-collar and white-collar children," 1971.

This study investigated relationships between four-year-olds' expressed humanitarian and success value preferences and their ethnicity, socio-economic status, and sex. The humanitarian values investigated were helpfulness, cooperation, concern for others, and sharing; the success values were competition, status, expertise-seeking, and completion of task. The sample consisted of 180 children and included equal numbers of 4-year-old Mexican-American, Negro, and Anglo children. Each ethnic group was composed of an equal number of white-collar and blue-collar children (30 each). The instruments consisted of 16 pictures depicting value conflict situations. The interviewer told an accompanying story with each picture. Wasserman reports that the direction of the differences of children's expressed humanitarian values and expressed success values indicate that the Anglo children's scores were higher than those of the

Mexican-American and Negro children. No significant comparison of Anglo and Mexican-American children was shown in gauging humanitarian value, but significant differences were found between scores of Anglo and Mexican-American children in scores for success value complex. The scores of the blue-collar children were higher for cooperation than those of white-collar children.

18. G.H. Naylor, "Learning styles at six years in two ethnic groups in a disadvantaged area," 1971.

The purpose of this study was to investigate learning styles among young children of a disadvantaged area. The subjects were 40 Mexican-American and 40 Anglo-American 6-year-old children in first grade. Tests were selected to measure four learning styles: (1) information demand; (2) impulsivity-reflectivity; (3) field independence-dependence; and (4) originality. No significant differences between sample groups were found on the basis of learning style test performance with the exception of the impulsivity measure where the Anglo group made more errors than did the Mexican-American group.

Naylor points out that differences in the learning behavior of Mexican-American children when compared to Anglo-American children have commonly been attributed to the differential influence of the Mexican-American culture. In this investigation it was expected that the Mexican-American groups would demand more information in decision making, would be more field-dependent, less impulsive, and less original than the Anglo-American groups. The results of these experiments are not entirely conclusive since social class was not taken into consideration. It may be the case that at age 6, middle-class children, be they Mexican-American or Anglo-American, would not be distinguishable on the bases of ethnic origin in respect to the tests for the four learning styles. At any rate, the study indicates that the popular notion of Mexican-American culture may well be more of a myth than is currently being suspected.

19. J. M. Stedman and R. E. McKenzie, "Family factors related to competence in young disadvantaged Mexican-American children," 1971.

The first purpose of this study was to identify high and low competence groups, defined on the basis of linguistic ability and behavioral adjustment, within a population of disadvantaged, preschool, Mexican-American children and then to compare their families on a number of different variables. A second purpose was to investigate the relationship between linguistic ability in both English and Spanish and teacher behavior ratings for the total child sample. The sample consisted of 134 five-year-old Mexican-American children from San Antonio, Texas. Adjustment was measured by The Classroom Behavior Inventory (CBI); language ability by the Tests of Basic Language Competence (TBLC), and the Semantic Differential technique was used to measure the parents' self-concept, roles within the family, and concepts

related to the child's adjustment in school. In brief, low competence parents were found to have a lack of emphasis for formal education (confirming the stereotype); high competence families appear to manifest a semantic and attitudinal structure which is rather "Anglo middle-class" in nature. Although the experiments appear to be inconclusive due to the many parameters employed, it does seem to suggest that even 'disadvantaged' parents differ in their attitudes toward education and Anglo teachers. The heterogeneous nature of the sample population seems to have surprised the investigators. The only value in this experiment seems to be a general warning against over-generalizing about 'disadvantaged' Mexican-American family values toward education.

20. L. Schmidt and J. Gallessich, "Adjustment of Anglo-American and Mexican-American pupils in self-contained and team-teaching classrooms," 1971.

The purpose of this study was to investigate the relationship between school adjustment and three variables: teaching organization, ethnicity and sex. The subjects for this study were taken from predominantly Anglo-American and Mexican-American schools in Texas. First and sixth graders were selected for the study. One hundred and sixty first graders were taken from two team-teaching schools (one of the schools was predominantly Mexican-American) and two self-contained control schools. The six graders also came from four different types of schools (N=383, of which 155 were Mexican-American children). Anxiety of first graders was measured with the Picture Anxiety Test; the anxiety of sixth graders was measured by the Phillips Anxiety Test. The results reported were: (1) Mexican-American first-grade and sixth-grade subjects reported significantly higher anxiety levels than Anglo-American subjects; (2) first-grade subjects in self-contained classrooms appeared more anxious than first-grade subjects in team-teaching settings. Sixth-graders were also more anxious in self-contained classrooms; (3) sixth grade females were found to be more anxious than males; (4) the anxiety level of the two ethnic groups did not differ significantly between the two organizations in the first grade, but the anxiety level reported by Mexican-American sixth graders in self-contained classrooms was significantly higher than the anxiety reported by Mexican-American team-taught sixth grade subjects. The main conclusion of the study is that team teaching is not detrimental to the elementary grade children of the study--and may be advantageous for some children.

The interesting results of the experiment is that Mexican-American children have higher anxiety levels than Anglo-American children. Perhaps this is tied to the fear of failure that was discussed by Silverstein (see above).

21. J. Kershner, "Ethnic group differences in children's ability to reproduce direction and orientation," 1972.

The purpose of this study was to see if there are differences in complex visual-spatial ability between Chicano and Anglo children and to see if these differences might be explained partially by the reciprocal polarization of spatial and verbal information processing strategies. Thirty Mexican-American and fifteen Anglo families were selected, each of which had a child enrolled in the local school. Eight bilingual Mexican-American families and eight Anglo families agreed to participate in the experiment. The ages of the children ranged from 6 to 12. The measuring instruments were the Toronto Family Functioning Scale, Warner's Index of Status Characteristics, Slosson Intelligence Test, and Peabody Picture Vocabulary Test.

The results showed that Anglo children are better than Chicano children in matching orally presented words with visual two-dimensional representations of the objects that the words symbolized. Chicano children are better than Anglo children in complex visual-spatial ability. It is not clear why there should be such a distinct difference in information processing strategies. The author claims that one possible reason is that communication between parents and child appeared to be at a minimum (this was observed during the investigators visit to the homes of the Chicano children). However, it seems if there is little verbal communication between parents and child when the Anglo investigator visits, it may well be due to the presence of the stranger. If the experiments were replicated, and if the same results were obtained, then a clear explanation is necessary for such a distinct difference in strategies.

IV. CONCLUSION

As can be seen from the articles reviewed, research on Mexican-American preschool children is limited to two general areas: intelligence measurement and linguistic competence. Most of the remainder of the research does not form a cohesive whole. Although a considerable amount of literature appears to deal with the Mexican-American child, most of it is either incidental to the Mexican-American child, or else it is not too revealing. What is needed is a coordinated effort. Perhaps mainstream America has finally discovered the Mexican-American, but it still has to discover the child.

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APPENDIX B

THE PUERTO RICAN CHILD: HIS CULTURE AND HIS LANGUAGE

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I. THE ISLAND EXPERIENCE

1. Historical and cultural foundations of Puerto Ricans.

The island which today is known as Puerto Rico was originally inhabited by the Arawak Indians who called it Boriquén ("Land of the Brave Men"). Archeologists have found marked differences in the remains of the Arawaks and consequently have classified this cultural group into two separate periods: the Igneri and the Taino. The Taino phase was in existence at the time of the Spanish conquest. According to early Spanish historians, another tribe known as the Caribs lived in the eastern part of the island and were in conflict with the Tainos.

The indigenous element constitutes, therefore, the first racial and ethnic component of the Puerto Rican culture. The racial characteristics of this group are: copper colored skin, straight black hair, high cheekbones, and black, slightly oblique eyes. The influence of the Tainos in Puerto Rican culture can be seen not only racially, but also linguistically through hundreds of Taino words which have been incorporated into the Spanish language.

When Christopher Columbus landed on the island in 1493, he claimed the island for Spain and called it San Juan Bautista. Colonization officially began in 1508 when the Spanish government sent Juan Ponce de León to explore and settle the island. He founded the town of Capara, which became the first Spanish settlement on the island, and during one of his expeditions, he came upon a bay whose beauty so impressed him that he named it Puerto Rico (rich port). After several years the town of Caparra was moved near the bay, took on its name, and became the seat of the government. For some time the names of both San Juan and Puerto Rico were used indiscriminantly in referring to the island until, in later years, Puerto Rico became the accepted name of the island and San Juan of the city.

In the process of coloninizing the island and exploiting its mineral wealth, the Spaniards utilized the Indians as a labor force and established a system of encomienda (literally, patronage) in which the white man would have under his custody a group of Indians who worked for him in exchange for food, clothing, shelter, and indoctrination into the Catholic faith. This system in essence represented slavery for the Indian whose cultural values were completely ignored by the Europeans. They imposed their cultural values and destroyed the Indian's way of life. The injustices and

exploitation perpetrated by the Spaniards upon the Tainos and the subsequent fruitless rebellions by the Indians against Spanish domination had led to an almost total extinction of the Tainos by the end of the sixteenth century.

In order to compensate for the rapid disappearance of the Indians, the Spaniards introduced African slaves on a large scale after 1511. According to a census made by the Spanish authorities in 1530, the population of the island was composed of approximately 1100 Tainos, 1500 African salves and 369 Spaniards (Brau, 1966).

The Spanish, African, and Taino racial and ethnic elements constitute the three links of the Puerto Rican cultural chain. The Spanish values were politically imposed at that time and therefore constitute the predominant elements of the culture. The language, religion, and many other customs and values are a cultural legacy from Spain. The influence of the Taino and the African is also seen today to a lesser degree in many aspects of Puerto Rican life.

Racially most of the Puerto Rican population is a mixture of the aforementioned elements, and intermarriage has always been a common happening. Due to their rapid disappearance, the Taino racial traits are not as common as the African. Both the Tainos and the Africans greatly influenced the Spanish language of Puerto Rico, while the African heritage is more noticeable than the Taino heritage in other aspects of the culture. An example of the African influence which permeates all levels of Puerto Rican society is the practice of <u>espiritismo</u> (spiritualism). The popular music and several traditional festivities also reflect this cultural influence.

Throughout three centuries of Spanish rule the Puerto Rican creole was emerging, and by the beginning of the nineteenth century a new, distinct culture and national identity had developed. This century also brought the clamor for liberation by the Spanish colonies in America who wanted to assert their right to exist as independent nations. In Puerto Rico the fight for liberation from the colonial bonds culminated with the armed uprising of 1868 known as El Grito de Lares. This rebellion was suppressed by the island's Spanish government, which from that time on attempted to repress all political thoughts and activities which dissented with the government. In spite of this, the Puerto Ricans kept struggling for their rights to self-determination. In 1897 Spain conceded an autonomous government to the island, giving the Puerto Ricans the right to self-government. This new form of government was short lived because in 1898 Spain went into war with the United States, which later invaded and took possession of the island as war bounty.

With the United States' invasion of Puerto Rico, a new colonial relationship began. This time Puerto Rico was dominated by a country of a different language and cultural heritage. It was governed by officials appointed by the President until the 1940's, when a growing nationalist consciousness led the Puerto Ricans to demand more participation and representation in the government.

During the first decades of United States' domination, many crucial decisions affecting the people of the island were made without their expressed consent. One of these decisions was made by the American

Congress in 1917 with the passing of the Jones Act, which granted American citizenship to Puerto Ricans. For some Puerto Ricans this act meant that they were going to have a somewhat larger participation in their government. For others, however, it was a mortal blow to Puerto Rican nationality and an open cultural aggression. These acts stimulated many Puerto Ricans to get involved in politics and to propose different solutions for the political status of the island. There were those who favored statehood for the island, those who preferred an autonomous government under the jurisdiction of the United States, and those who completely rejected colonialism and saw independence as the only solution. These three political tendencies are present today and all political debate revolves around the unresolved status of the island.

In 1950 the U.S. Congress passed Law 600 giving Puerto Ricans the right to enact their own constitution and elect their own government. At the same time this law proposed a new type of government to be called Estado Libre Asociado (literally, free associated state) or Commonwealth of Puerto Rico. As a part of the Puerto Rican Constitution, the federal government included a document called the Federal Relations Act which defined the political, economic, and fiscal relationship between Puerto Rico and the United States. This act limited the powers of sovereignty and self-determination of the Puerto Rican people because the powers of the Commonwealth were subject to the restrictions imposed by the U.S. government. In spite of the limitations, it was ratified by the people.

The U.S. government has the same authority in Puerto Rico as it does in any state of the Union, except in the matter of federal taxes. The Commonwealth uses the same currency, tariff regulations, postal system, and armed forces regulations and provides that Puerto Rico not enact any law violating the U.S. Constitution.

An industrialization program was designed and fostered by the Puerto Rican government in the 1950's. This program, known as Operacion Manos a la Obra (Operation Bootstrap) received international attention as a prime example of the industrial revolution making its way into the hitherto underdeveloped areas of the world. An industrialization program directed by Fomento, a governmental agency, had introduced nearly 1000 factories into the economy by the end of 1964. Eighty percent of the new firms established were controlled by American capital attracted by the concessions of tax exemptions. This industrialization program significantly increased the per capita income of Puerto Rico; however, the distribution is very uneven since statistics show that 12,000 of the approximately 400,000 families receive less than $500 per year (Hanson, 1955[1]).

The transformation of Puerto Rico from an agricultural society to an industrial one has brought many changes to the Puerto Rican way of life. It is a fact that industrialization created new jobs. At the same time, however, this created heavy employment losses in agriculture and traditional manufacturing industries, the reduction of small local business, and many conflicts of cultural values. In spite of the great migration movement to the urban centers of the U.S., there still remains an unemployment rate of more than 15% on the island.

2. Family patterns of the Puerto Rican.

Family life in Puerto Rico is marked by the common pattern of customs, institutions, and ethos that are characteristic of most of Latin America and that are undoubtedly a legacy from the Spanish culture.

Family ties are strong, the family circle wide, and the extended family is maintained through compadrazgo (coparenthood). This institution serves to strengthen bonds of affection and obligations among individuals. Coparents are chosen from special friends, favorite relatives or immediate family members. One individual may become a coparent to another by becoming a godparent to his child through church baptism or confirmation, and sometimes merely by mutual agreement.

No Puerto Rican is considered properly socialized unless he can comport himself with respeto (literally, respect). This has been defined as "the proper attention to the requisites of the ceremonial order of behavior, and to the moral aspects of human activities"(Lauria, 1972). The children must show proper respeto for their parents and in dealing with their elders. Successful interpersonal and family relations depend a great deal on the degree of respeto that individuals show to each other.

The roles of the man and the woman in the marriage institution are clearly defined: the husband is dominant, he has the task of providing the material necessities for his children and making the decisions. The degree of compliance of these responsibilities will reflect on his dignity and machismo (literally, manhood). The task of the wife is to dedicate herself to the home and the children. A mother must protect the children and never abandon them, and there is a clear understanding of roles which accepts the idea of male superiority.

The mother has a dominant role in child rearing because men consider this to be a woman's job; nevertheless, the key figure in major decisions concerning the children is the father, who generally gives permission to the children to do things. His position as head of the family puts him in a position which makes it difficult for the children to relate to him. This is essential in order to maintain the respeto which has been mentioned as one of the main values of interpersonal relations.

3. Child-rearing practices.

Child-rearing practices in Puerto Rico are closely related to the aforementioned definition of the roles of the man and the woman. The way a Puerto Rican male child is raised and the values that are imposed upon him at home sharply contrast with those values inculcated in the female child. Both the male and the female child are socialized to accept a definite role in society.

The transformation of Puerto Rico from an agricultural society to an industrial one and the penetration of American cultural values have in some ways relaxed the traditional patterns of a patriarchal household, especially in the middle and higher classes, but the picture has not changed much in the lower classes.

One of the most common values inculcated in Puerto Rican boys is machismo. The patterns of virility and dominance implied in the concept

of machismo are also a component of the Latin American ethos and not exclusively Puerto Rican.

Probably the most striking manifestation of attempts to inculcate machismo, especially in the lower classes, occurs in the adult adulation of the child's genitals. Little boys are discouraged from playing with girls or they might be called majercitas (little women) if they do. Activities which are typically male oriented are praised by the parents. The male child sees his sister as dependent and weak, so as he grows up he will feel like his sister's guardian. In the socialization process he is also trained to take the place of the father in his absence.

The freedom of general mobility that the male Puerto Rican child has is denied to the female. The female child is usually overprotected as a consequence of the assumption that she is innocent and weak. She requires protective measures because of the double standard of sexual morality. A proper marriage without virginity is almost unthinkable.

Despite the greater cultural value given to the male, in the actual family situation females usually get more attention and affection. All female socialization is geared in the direction of femininity and submissiveness while the males are expected to be tough, self-reliant and virile. Having to keep up with his superiority, the male might have more propensity for anxieties and emotional complexes than the female would.

4. Schooling in Puerto Rico and the language controversy.

One of the most controversial issues that emerged at the beginning of the United States' domination of Puerto Rico was the acculturative and assimilative pressure imposed upon Puerto Ricans. This is associated to the debate as to whether or not the educational system should promote assimilation of the American culture. The Puerto Rican struggle to preserve its culture is mirrored in the school system, and the content of schooling has always preoccupied the advocates of separation from the U.S. as well as the supporters of the Commonwealth or statehood status.

English was established as the official language of the educational system at the beginning of American rule. Spanish was used at the elementary level and taught as a special subject at a higher level, which produced many educational deficiencies for the Puerto Rican children.

A study made in 1925 shows that the results of complete English instruction for children whose native language was Spanish were negative. Not only did the children fail to obtain a mastery of the English language, but their comprehension in other subjects was decreased (Lewis, 1964).

The polemic of language was not solved until the 1940's when Puerto Ricans demanded greater autonomy and more control over their own educational system from the United States. Some changes were introduced and Spanish was declared the official language with English as a ompulsory second language. Since then, English has been accepted as compulsory subject from the first grade on under the assumption that o learn English and to a certain extent "Americanize" is the best way o prosperity, stability, and social mobility. The teaching and learning

of English for assimilative and not entirely pedagogical purposes reflects the ambiguities of the political status of Puerto Rico.

Inasmuch as the teaching of English in Puerto Rico represents an accommodation to American cultural patterns, the emphasis of instruction in that language has often meant depriving the Puerto Rican child of information that could increase his awareness and strengthen his ties to his own culture. The lack of a concensus on the language policy makes the Puerto Rican educational system incapable of fostering cohesion in the society. Therefore, it can be concluded that Puerto Rican children generally do not develop a strong national consciousness or sense of pride in their culture and language.

II. THE U.S. EXPERIENCE

1. Effects of migration on family life.

After the Second World War, an intensive process of migration to the urban centers of the United States began. The decades which followed marked an accelerated displacement of large sectors of the Puerto Rican population which settled in the eastern part of the U.S. (New York City, Buffalo, Rochester, Philadelphia, Newark, Hartford, Chicago).

Some of the principal factors which have induced migration include the intolerable social and economic conditions on the Island, the transportation facility between Puerto Rico and the U.S., and the fact that government agencies in Puerto Rico never discouraged migration. According to the 1970 census there are approximately three million Puerto Ricans living on the Island and one and a half million living in the United States, but it has been estimated by ASPIRA[2] that presently two and a half million Puerto Ricans are living in the U.S. It is clear that the census failed to reach all of the non-English speakers, the migrant workers, and the poverty stricken who reside in deteriorated urban slums.

Puerto Rico is the only country in the world which has more than one third of its population living outside its national boundaries, and the New York Puerto Rican community constitutes the highest group transplanted to and concentrated in a single city.

The Puerto Ricans constitute New York's newest and youngest minority group. At the time of arrival, more than sixty six percent of the immigrants were under 25 years of age and more than half did not have previous work experience; one fourth had worked in farm labor on semi-skilled jobs, while less than ten percent had worked as professionals (Cordasco, 1970).

The following table shows that a very low percentage of the Puerto Rican population in the United States is of prime working age and that there is a large number of children in the total population.

Age Distribution of Puerto Rican Population in the U.S.[3]

Age Category	% of Total Puerto Rican Population
under 5 years old	14.7
5-9 years old	17.0
10-17 years old	16.9
18-19 years old	3.0
20-24 years old	9.0
25-34 years old	15.9
35-44 years old	10.3
45-54 years old	5.9
55-64 years old	4.3
65 or older	3.0

According to the last U.S. census 51.4% of this population lives in poverty stricken circumstances. The median income of a Puerto Rican family in the U.S. is $3500 and 33% are on public welfare. In comparison with other minority groups, Puerto Ricans are among the lowest paid workers. From this information it can be deduced that most Puerto Rican children who attend U.S. schools are members of the lower classes.

Puerto Ricans have one of the lowest levels of formal education among the ethnic and racial minorities in the state of New York. In 1960, the census showed that only 13% Puerto Ricans who were 25 years and older had completed high school education or beyond, compared with the 31% non-whites and 40% whites. About 52% of Puerto Ricans 25 years or older had less than an eighth grade education. Of this same group, 87% had dropped out without graduating from high school. Not more than 5% of Puerto Rican college age youths are moving on to higher education, and the estimated enrollment in institutions of higher education in the Fall of 1970 was 20,000, or .3% of the total racial minority enrollment (Crossland, 1971). According to ASPIRA, the drop-out rate for Puerto Ricans admitted to college is 60%.

All indications point to the fact that the Puerto Ricans as a minority group are among the ones who benefit the least from the educational programs in the Unites States. The same generalization can be made in the areas of health, housing, employment, and political involvement (Cordasco, 1970).

The institution which faces the most direct repercussions in the migration to the U.S. is the family. Statistics have shown that the migration of the Puerto Rican is a family migration, and when they arrive in the U.S. many conflicts of values and roles emerge that tend to weaken the family ties (Fitzpatrick, 1970).

One of the first conflicts that emerges is related to employment. Statistics have also shown that it is easier for Puerto Rican women to get jobs in New York than Puerto Rican men. This reverses the roles they had on the island, especially if the husband is unemployed. It also affects the children who were conditioned to have their mother at home at all times. The family patterns known to the Puerto Rican parents and children come into conflict with the new way of life.

Some studies have shown that one of the most difficult things for the Puerto Rican parents to accept is the way that American children are raised. When a possible shift of roles occurs on the part of the Puerto Rican children, the family comes into conflict. While the American child is taught to be aggressive, self-reliant, and competitive, the Puerto Rican child is taught to be submissive and dependent; and when the Puerto Rican child starts to behave according to American patterns, the parents consider him disrespectful. Parents also discover that they cannot give the same kind of protection to their children or confine them to the home in this new environment.

Sometimes tension between parents and children arises because the parents' values differ from those that their children are learning in an American school, which tries to acculturate them into American values. The educational system is transmitting the values of a different culture and this not only affects family relations, but also affects the child's performance and reduces his possibilities for learning.

Another problem that greatly affects the Puerto Rican child is family mobility. The Population Health Survey (1960-65) shows that the Puerto Ricans are the most mobile of all minority groups, with 71.6% having moved at least once during this five year period. It also shows an inverse relationship between family income and mobility rates: the lower the income, the more mobile the family.

Racial tensions in the U.S. also create problems for the Puerto Rican family that migrates. The Puerto Ricans are mainly a product of the mixture of races; therefore, skin color is considerably less important in Puerto Rico. When the family comes to the U.S., they are usually ignorant of the racial attitudes of the American society and this creates new pressures in the families that have children of different skin color.

2. The Puerto Rican child in U.S. schools.

Recent investigations indicate that Puerto Rican students form a large part of the total school population within the New York public school system. This group has the lowest level of education and the highest degree of difficulty with the English language.

Out of a total population of about a million public school students, 57% are members of minority groups such as Blacks (300,000) and Puerto Ricans (260,040), which means that the Puerto Ricans constitute approximately one fourth of the school population in the State of New York (Nuñez, 1971)[4].

In New York City there are also more than 135,000 students whose mother tongue is not English and who have from moderate to severe English-language difficulties. The majority (94,000) of these non-English speakers are Puerto Ricans; in other words, they constitute 70% of the non-English speakers. The table on the next page indicates the English Language Ability of Puerto Ricans and other New York City pupils whose native language is not English.

English-Language Ability of New York City Pupils Whose Native Language is Other Than English*
October 1970

Language	Totals	Moderate Difficulty (Category 1)[a] No.	%	Severe Difficulty (Category 2)[b] No.	%	No Difficulty (Category 3)[c] No.	%	Pupils with Language Difficulties (Cat. 1 and 2) No.	%
All Puerto Rican Pupils	245,082[d]	63,311	25.8	31,489	12.9	150,282	61.3	94,800	38.7
Other Spanish-speaking pupils Who are not Puerto Rican	37,878	12,959	34.2	9,710	25.6	15,209	40.2	22,669	59.9
Chinese-speaking pupils	12,056	3,358	27.9	1,672	13.9	7,026	58.3	5,030	41.7
Italian-speaking pupils	9,153	2,425	26.5	1,589	17.4	5,139	56.2	4,014	43.9
Greek-speaking pupils	4,450	1,320	29.7	724	16.3	2,406	54.1	2,044	45.9
French-speaking pupils	4,126	1,642	39.8	1,012	24.5	1,472	35.7	2,654	64.3
Other Non-English-speaking pupils	7,309	2,543	34.8	1,671	22.9	3,095	42.3	4,214	57.7
TOTAL	320,054	87,558	27.4	47,867	15.0	184,629	57.7	135,425	42.3

[a]Category 1 (Moderate Difficulty): Pupils who speak English hesitantly at times, or whose regional or foreign accents indicate the need for remedial work in English and/or Speech.

[b]Category 2 (Severe Difficulty): Pupils who speak little or no English, or whose regional or foreign accents make it impossible for them to be understood readily.

[c]Category 3 (No Difficulty): Pupils who speak English fluently for their age levels, with no severe regional or foreign accent.

[d]The Ethnic Data section of the Board of Education's Annual Census, as opposed to the language survey reported above, shows: Puerto Ricans, 260,040, Other Spanish-surnamed Americans, 39,420. No logical explanation has been given for the difference between these two sets of figures.

Source: New York City Board of Education, Language Survey, October 1970. (From Worksheet, Form SD-1090, Annual Census of School Population - Class Report, October 30, 1970).

*Reproduced from the Fleischmann Commission Report.

The Puerto Rican students are behind the urban whites and Blacks in verbal ability, reading comprehension, and mathematics. According to the Fleischmann Report, the failure in these areas is disproportionally high among Puerto Rican elementary school students. Louis Nuñez also points out that in a 1969 study of schools with a majority of Puerto Rican students, 85 out of 100 pupils were below grade level in reading, and one third of these students were at least two years below grade level. This problem with reading comprehension has a direct effect on their performance in other fields (Nuñez 1971).

In several studies made by Macnamara, the bilingual children were found inferior to the monolingual children in problem arithmetic (reasoning), but not in mechanical arithmetic. The reason seems again to be the poor reading ability since with tests of problem arithmetic, the child is expected to read and interpret those passages in order to answer the questions, whereas with mechanical arithmetic, once the child understands the process his difficulty ends (Macnamara 1967).

The rate of Puerto Rican drop-outs in New York City schools is the highest of any ethnic group. A study made in 1966-67 found that 53% of the Puerto Ricans between their sophomore and junior year drop out of high school. This rate is followed by 46% in the Black group and only 29% in Others (mainly whites). This number does not include those who drop out of junior high school nor others who never reach graduation. Of those who graduate, only 46% (a total of only 2,237) continue on to college (Velázquez 1971). The remainder of students who graduate from high school but do not enter college are extremely limited since they reflect an inadequacy in oral English even upon graduating, and have non-marketable skills when they leave school. Even though Puerto Ricans received 7.4% of vocational high school diplomas in 1963, in contrast to 1.6% of academic diplomas, their difficulties with the English language decreased their ability to put their skills to use.

Another characteristic of the Puerto Rican group is its number of psychological problems. According to the Coleman Report, Puerto Rican students were more fatalistic than other students, feeling that they had no control over their own destinies and that there was little point in striving because striving implies hope (Nuñez 1971). The Puerto Rican students in New York are plagued by social and emotional disorientation, inferiority feelings, and a poor self-image. Obviously, these psychological problems affect their academic performance and their development within the society.

Teachers and school authorities initially blamed this failure on the students (because of their supposed non-communicative posture, lack of interest, low I.Q., inferiority, and number of

deficiencies) and on the community (because of lack of communication with the school, and negative influences upon the students).

Recently, some Puerto Rican organizations--such as ASPIRA and the Puerto Rican Forum--as well as government and other educational entities realized that the failure was not in the child nor his community, but in the school system which was not adequately filling the educational needs of the children. The assumption that all students can benefit from the same subjects, teaching styles, and mediums of instruction proved to be incorrect.

It can be strongly concluded that when these students have equal opportunities (provided with appropriate language instruction and cultural pride) they will become pupils with the same range of academic abilities and emotional stability as the others. This opinion is expressed by Louis Kaplan (1970) when speaking about testing these children:

> ...the culture fair test (when cultural biases of the common intelligence tests are removed) have shown that the average real intelligence ability is in general at the same level in all social groups.
>
> ...Many slum children who do poorly in school, as measured by present tests, have higher natural ability than upper class children who do well in school.

In the schools within the United States, the Puerto Rican child is expected to accept the conflicting values of the dominant society. In most cases teachers are not aware of these conflicting values which are being enforced by the educational system. These values are definitely not the same as those that the children learn at home.

The low educational and socio-economic level of the Puerto Rican parents usually prevents them from motivating their children or assisting them with school work. The lack of a curriculum that considers their social and cultural patterns and the lack of school orientation and understanding of another culture contribute to academic retardation and inadequate educational achievement.

A great number of children are not able to follow directions and classroom instruction quickly because of their lack of knowledge of the English language. As a result of these handicaps, the child begins to feel inadequate because neither the school nor the home provides the needed support or reinforcement. The children have the tendency to blame themselves for their failure in school, thus creating strong guilt feelings within them.

The teacher also might feel inadequate because the pupils do not seem to learn much. In many instances the pupils are reprimanded for being inattentive, uninterested, restless, talkative, and sometimes disorderly, and in others their culture is attacked.

A negative attitude on the part of the teacher towards the child's culture usually damages the child's self-concept and makes him reject his cultural background.

Another problem with the teachers is that many of them are limited because of a different social, cultural and linguistic background, as well as the lack of materials and an inflexible curriculum which does not provide conditions conducive to the learning process. Due to these problems, they strive to move into "better" schools if they can get a transfer. The turnover is thus very large in the schools and adds to the insecurity of the child.

The lack of Puerto Ricans in such professional positions as teachers, counselor, and principals, and their lack of representation in the top administrative positions at the Central Board is another major deficiency.

Teachers and other professionals responsible for school programs represent a key factor in the education of the Puerto Rican student. All too often, however, these professionals lack the necessary sensitivity that could improve the teaching of Puerto Ricans. As a result, educational programs reflect and are built upon stereotypes, misconceptions, prejudicial attitudes, and a general lack of knowledge of the realities and significance of social class and cultural differences.

Most Puerto Rican children who come to urban schools are members of the lower classes and they demonstrate characteristic social patterns. According to Kaplan, 70% (including lower class and lower middle class) of the elementary school children come from the lower socio-economic groups; while 95% of the teachers come from the middle socio-economic groups. In the case of Puerto Rican children, social class patterns are combined with cultural patterns. This makes it more difficult for the middle class American teacher to deal with the student because his training did not prepare him for this situation and also because his teaching is unrealistic for the needs of the children, who in the end are the losers. Kaplan (1970) says, in speaking about the teacher-student relationship:

> The teachers preference for the upper-status children have a direct influence on academic achievement. Heintz and Hollingshead have noted that the lower status children must do a better job than their higher status classmates to obtain similar grades.
>
> It is only the unusually bright or exceptionally ambitious lower-class child who will go to the whole route and rise above his class. Most lower-class youngsters are defeated before they start out in life.

The facts support these words: 80% of the upper and upper middle-class schoolmates and 20% of the lower middle-class children go to college, but only 5% of the lower class children are able to continue on to college.

The education of the Puerto Rican child in the U.S. schools has to be considered within the context of the conflict in cultural and social class values, and different motivations and models have to be created in order to obtain positive results.

3. The Puerto Rican child and his language.

The language of the Puerto Ricans is Spanish, but with the modalities of the Puerto Rican culture and those of the Caribbean area. It is basically composed of the language brought by the Spaniards in 1493. In addition, the Taino and African heritage have influenced the Puerto Rican lexicon.

The language of Puerto Rico has been in use for 480 years in spite of the American invasion of the island in 1898 and the imposition of English as the official language for several decades. The language used by the Puerto Ricans continued to be Spanish, and the attempt to assimilate them in linguistic terms failed.

Spanish is once again the official language of Puerto Rico and it is used in all domains, including education. Although English is still taught in schools as a second language, only a small part of the population speaks English fluently. The influence of English upon the Spanish language has been noted especially in the vocabulary and syntax, but the introduction of anglicisms has not affected the language to any great extent.

The Puerto Ricans who come to the United States bring their culture and language with them. The language, as can be expected, is affected by the new context. The study of the language of a Puerto Rican community in the U.S. is valuable because a well conducted study can: a) measure the degree of bilingualism in a community in order to design bilingual and bicultural programs; b) describe the characteristics of the language in order to detect the degree of phonetic or syntactic interference in students learning English; c) make predictions concerning the future direction of the language of a particular community, thus helping in the implementation of adequate bilingual programs.

According to research conducted by Early Childhood Programs (Berbaum 1972) in a community in which the people speak two languages, each language has its particular settings and is associated with specific roles. A study of a Puerto Rican community in Jersey City shows that in the five domains or areas in which the individual functions (education, work, family, religion, and neighborhood), English is favored mainly in the domains of religion, education and work, while Spanish is the language utilized in the family and neighborhood. This evidence explains why a Puerto Rican child can speak Spanish at home or with his friends and English in the classroom or other formal occasions.

Another aspect studied was the degree of interference of one language with the other and the degree of syntactic dependence in the different domains. According to the available data, Fishman

concludes that various factors affect the degree of interference, such as the fluency of the child in each language and the given situation where he uses it. In the less formal domains, the Spanish influence on English speech is greater than in the more formal. On the other hand, the Puerto Rican child will show less interference while talking to a monolingual child or to his teacher in order to make his communication more effective. He is less careful with his English when he speaks to other bilingual children who will surely understand him (Berbaum 1972).

Other factors that influence the degree to which the Spanish language is spoken are age, time residing in the U.S., and fluency in English. The newcomers and the elders speak mainly Spanish in all domains.

Martin Edelman found that older children use less Spanish in the domains of education and religion, and more in the domains of the neighborhood and family. They use more English in all domains when talking to people their same age, whereas they use Spanish with the older members of their community and with younger children (Edelman 1969). This indicates that they probably use Spanish as a means of communication with people who speak little English, especially with the pre-school children.

The degree of fluency that a child will acquire in English or Spanish will depend on the attitude of his family and community toward the child's language and on their desire to be absorbed by the dominant culture and to assimilate its values. If the attitude of the family or community towards English is negative, this will affect the degree of the child's competence in that language. On the other hand, if the family or community wants the child to become incorporated into the American society, his use of English in the different domains will increase.

Most parents in the Puerto Rican communities want their children to learn English so they can function adequately within the American society, but they also want their children to be able to speak Spanish. Concerning the extent to which they want their children to become assimilated, attitudes are presently changing and moving more toward the goal of cultural pluralism and away from assimilation.

Joshua Fishman (1973) concludes that a language shift will occur in the Puerto Rican community in which the separation of domains in language vanishes as the "mother tongue" becomes displaced by "the other tongue", and consequently will be absorbed as was the case with other immigrants. This phenomenon might not occur in the Puerto Rican community, however, due to the close contact between the Islanders and the Puerto Ricans living in New York. The Puerto Ricans are constantly flying to the Island to visit relatives and friends, so they are continuously exposed to the Spanish language and to the customs and values of the Puerto Rican culture. It is also noticeable that a large number of the means of mass communication in New York (radio, television, press) which, in contrast to the American media, present the cultural, educational, and social activities of the Puerto Ricans and not only his problems with the system and the society.

Another factor that has increased the cultural and linguistic attachment of the Puerto Ricans to their heritage is the increasing number of Puerto Rican Studies programs. These programs reject the "melting pot" theory based on the internalization of the stigma and self-hatred produced by the dominant society. Puerto Rican Studies programs in colleges and universities are primarily concerned with rediscovering, revitalizing, and strengthening the ethnic identity of this minority group through the process of "reverse acculturation" (Seda Bonilla 1971). Puerto Ricans, like other racial minorities, have realized that the only way to get rid of the stigma and poor self-image inherent in the internalization of American culture is to maintain their own cultural identity as a separate entity in a pluralistic social scheme.

Many other centers in New York promote the preservation of the culture and the arts while working directly with the community. Such centers as the Taller Boricua, Museo del Barrio, and Taller Loíza help to form a stronger bond between the Puerto Rican and his culture, language, and community.

4. The Puerto Rican child and the bilingual/bicultural programs.

The study of the language of the community is essential in order to establish and develop bilingual and bicultural programs that can better educate and benefit the child. Some conclusions can be drawn from the study "Bilingualism in the Barrio" that could help to accomplish these purposes, especially in relation to the early childhood programs (pre-school and elementary): a) Most of the Puerto Rican children who enter school speak Spanish; b) the child's community will probably continue to use Spanish as a means of communication within itself. These and other reasons to be discussed further are sufficient to justify the existence of the bilingual programs.

Certain questions arise, such as: What is Bilingualism? What are the necessities or advantages that the child receives from bilingual education? There is no precise definition of bilingualism since each field (psychology, linguistics, etc.) has its own special definition and bilingualism covers a diverse series of programs. No one general definition has turned out to be satisfactory. What can be concluded, however, is what kind of people these programs are directed toward and what a bilingual school is.

A bilingual school is a school which uses two languages as mediums of instruction in any portion of the curriculum, except in the languages themselves (Gaarder 1967). Bilingual education programs have been those which have ESL (English as a Second Language) in their curriculum, but as the term bilingualism implies, a program or school may not be considered bilingual unless the language of the home is used as a medium for teaching part of the subject matter and English another part of the curriculum. Although this definition does not entail the teaching of English in English and the other

subject matter in the mother tongue (in this case, Spanish), there are presently high schools in New York City in which all subjects are taught in Spanish, and English appears only as a foreign language. Based on these facts, it should be pointed out that each individual or group has its own definition of bilingualism and its implementation.

Basically speaking, there are two types of schools or bilingual educational systems: a) the one-way school in which the students are learning in two languages, either the mother tongue added with equal or unequal time and treatment or the second tongue added with equal or unequal time and treatment; b) the two-way school where there are two groups, each learning in the native tongue with the other's language in either segregated or mixed classes with equal or unequal time and treatment. An example of a successful two-way school is the Coral Way Elementary School in Miami, Florida where 720 Cubans and North Americans of the lower middle class were taught both in their own native tongue and in the second language with equal time and treatment of both languages (Gaarder 1967). It can be noted that bilingual programs vary a great deal in the amount of time allowed for each language, the presentation of each language, the grouping of the children, whether the mother tongue is added or not and at what point the second language is introduced. There are certain advantages and disadvantages to be taken into consideration, however, in comparing the kinds of "bilingual programs".

A program which does not strive for the maintenance of the child's native language and culture on an equal basis with his learning of second language is as deficient as a program which includes only ESL and considers itself bilingual. There are many cases where full bilingualism is an impossibility due to the ethnic make-up of a given school. An example would be a school which has several ethnic groups together and no one predominant native language. In this case, ESL would be the only means of finding a common denominator for communication. It should be stressed, however, that when, as in the case of the Puerto Ricans in New York, there is a predominant native tongue, only full bilingualism can offer real benefit for the child.

Presently there are seven different types of programs in New York, although only the first three conform to the Title VII definition of bilingual education:

1. Bilingual schools: a separate school that has been organized to achieve "functional bilingualism" for English and non-English-speaking children.

2. Bilingual Track: within a regular school, classes are organized at every grade level to provide a complete bilingual program.

3. Bilingual Classes: one or two grades organized to teach all subjects in Spanish and English. Each year the program will expand until there is a complete bilingual track.

4. Bilingual Instruction in a Subject Area: Spanish and English used as the languages of instruction for science in the junior high school.

5. Non-English Class: Spanish used as the language of instruction for one year and then the children go into the mainstream of mixed classes.

6. Spanish Language Arts: for English and non-English speaking children.

7. Instruction only in English as a Second Language (ESL).

Three out of every four children in the city school system receive no help with their special language problem and only 4,000 (3%) of the non-English speakers are in bilingual programs. In addition, the major effort made by the New York City Board of Education to solve this problem is the exclusive ESL approach in which all instruction is conducted in English with mixed classes as a general rule.

The new license created for "the bilingual teachers" (a teacher that should be fluent in two languages but need not be from a foreign background) is discriminatory because few Puerto Rican teachers are able to pass the examination, due to the irrelevant, American background examinations presented by the Board of Examiners.

Another variant in bilingual programs is to whom they are directed. They may entail people who have knowledge of and can use two languages in a daily conversation. They may also include people whose native tongue is Spanish or people whose native tongue is English (both speak a little of the other language). Another category is people who speak both languages either as compound bilinguals (who mix both languages) or a coordinate bilingual (who operate knowingly on two separate channels).

A bicultural person is one who has incorporated or has knowledge of two cultures through his own experiences. The bicultural programs in New York are programs that emphasize two cultures: the dominant American-Anglo culture and the culture correspondent to the ethnic group in question. These programs are designed to offer courses in the language, history, and culture of the American society and the language, history, and culture of the Puerto Ricans (in this case). In these programs, the pupils also study the characteristics, problems, and development of their communities in the United States. In the early childhood bicultural programs, special emphasis is given to the cultural and historical aspects of the people. The teaching of the Puerto Rican language and culture helps to prevent the child's alienation from his family and community, which usually occurs when a person is assimilated into the dominant group.

Bilingual education was established by the American Bilingual Education Act. The amendment was passed as Title VII of the

Elementary and Secondary Education Act of 1965, effective as of July of 1968, and administered by the U.S. office of Education.

A new bill was proposed in New York State (1972) stating that bilingual programs must be established in all counties with twenty or more students of a common language background who also possess "limited English speaking ability". This project still has not been approved as of 1973.

As can be seen, in spite of all of the efforts made, there are still thousands of students in New York who sit in class day after day not knowing what is said or read, students who receive no special attention with their language problem and who, consequently, are educationally retarded.

A concluding point is made by Louis Nuñez (1971):

> In reviewing these efforts of the school system to cope with the language problem of Puerto Ricans, one could not claim that nothing has been done. One can, however, conclude that the efforts have been halting, inadequate, lack proper support by the Board, and in the end are found to be completely inadequate to meet the enormity of the problem.

Notes

[1]All statistical data on Operation Bootstrap is taken from this book.

[2]ASPIRA, Inc., of New York. The term implies "to aspire".

[3]These data are taken from "Selected Characteristics of Persons and Families of Mexican, Puerto Rican, and other Spanish Origin: March 1971," Population Characteristics, U.S. Bureau of the Census.

[4]The number 260,040 is based on the Ethnic Data Section of the Board of Education. The Fleischman Report made an estimate of 245,082.

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APPENDIX G

THE INDIAN STUDENT*

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A word of caution is in order before embarking upon a description of some of the more general characteristics of Indian children as background for commentary upon the educational efforts directed toward these children. As stated in a sensitive and competent Alaska Department of Education survey of instructional strategies which had been found useful in the classrooms of that State with cross-cultural student populations,

> The instructional problem in a cross-cultural classroom . . . is extremely complex. The teacher can rely little assurance . . . derived in the standard . . . about traditional cultural values, nor . . . the experience of a majority group . . . [illegible] . . . (Alaska Department of Education, 1973)

[illegible] may be to understand the behavior of members of that culture by one's own behavior) it becomes more damaging than helpful if permitted to develop into an unconscious stereotype which prevents individuals from being treated as individuals. Invariably, such "special treatment" will be unfair, and just as invariably it will "hurt," though, and history tends to matter how well meaning the motivation may be. However, special treatment has characterized "other cultures" (and their unique attributes) in most cross-cultural research.

On the other hand, the culturally sensitive teacher who can take a genuinely friendly and personal interest in particular children, not just the Indian ones, and accept the role of interested learner, where the subject is the child himself, his experience of life, opinion on the subject, and reminiscences of earlier days, may provide more accurate and more educationally relevant information

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than any available from books, and may give some vital language development experiences for the child in the process.

The following material, then, is general; it is not intended to answer the question, "What are Indian children like?" (often invites stereotyping), but to indicate areas in which the experience of particular children may possibly have been different from that of most whites, or may not, but which may be of significance in relating to the child. Examples cited will be representative of common practices in particular tribal groups, but even tribal traits should not be assumed to be sure guides, since no descriptions, however recent, can be presumed to apply uniformly to all tribal members.

All children learn primarily through observation and imitation, especially during the preschool years; this is as true for Indian children as for any others, who watch carefully and then repeat what they have seen and heard. It is seen in their play, as they re-enact life about them, and in their efforts to master adult skills on their own. Greater use tends to be made of this mode of learning in many Indian homes than in those of non-Indians; in part, the roots of observation and imitation of Native American children are found deep in the past, [illegible]

[illegible]

[illegible]

[

The telling of traditional stories and legends is often governed by seasonal religious rules and is usually the prerogative of the older members of the family or of religious leaders. Some of the stories are embodied in the songs of religious and healing ceremonies, or in special rites. Others are told informally, either as they seem appropriate or just for fun.

The preservation of values is also frequently ensured by participation in rituals as well as by verbal instruction. An example is the practice of conducting a special ceremony just before a tribe member leaves for an extended time in a foreign environment, such as when a man leaves for military service, a child for boarding school, or a family moves to a city on a relocation project. A Chippewa reported:

> . . . since we knew our children would be whipped by the Whites, parents took their children to a dance or large gathering of the people sending them away to school. They gave away presents to anyone that was there. Then they made pretentions at switching the child with a little stick. After that they would say, 'All right, my child! you can go to school now and be whipped.' (Quoted in Hilger 1952:81).

It would appear from this account that the most serious part of the whipping for which the child had to be prepared was not the physical pain but rather the notion that an adult would do such a thing to a child. This was accomplished primarily through ceremonial rather than verbal instruction. These parents had attended boarding schools when there was only one attendant for 60 children. Ceremonies are also conducted at the time the tribal member returns from the foreign environment, in order to restore him to harmony with his own land and people. Children participate in such ceremonies from infancy, either as central figures or as members of the supporting community. Indeed, the child is incorporated into all aspects of family and community life almost from birth; he becomes an active and responsible participant as soon as he wishes and is able to contribute meaningfully.

While most teaching is done in the realistic and generally positive setting of modeling behavior and story telling, Indian elders do sometimes feel the need to punish children. Among the Hopi for example there are clearly delineated roles for carrying out these disciplinary responsibilities, but they do not overtly involve either parent. Rather, the brothers of the mother have the principal responsibility for administering direct corporal punishments, when needed, as representatives of the male members of her family. All family members cooperate in applying the sanctions of the Hopi religion to the children's behavior. In this case, the men of the village impersonate the deities of the tribe as part of a regular

cycle of ceremonials which include, at appropriate intervals, visiting the homes of the families of the village to present gifts to those children whose conduct warrants it, delaying the presentation until the last possible moment in those cases where children need to resolve to improve.

Additionally, the first initiation rite of the Hopi child at age 6 includes a vigorous whipping at the hands of one of the deity figures as a part of the ceremony, which may in part be borne by a sponsor in the case of particular children, apparently partially on the contingency that they have been particularly well behaved.

Other tribes such as the Blackfoot and Plateau groups have a tradition of inflicting pain or discomfort, not in connection with misbehavior, but as a Spartan means of training children in hardihood, to help insure their survival under hostile circumstances.

Many tribes extended this Spartan principle in the later years of childhood to incorporate vigorous physical skills-training, early rising, endurance running, tolerance for fatigue and cold, persistence of effort to the very last moment, and so on. Many of the values inherent in these practices are still very much alive as ideals for Indian youth, even though the circumstances which gave them birth are no longer existent, and the practices themselves may have disappeared in every aspect of life but the athletic field, gym, and military service.

Even in tribes where endurance of pain and discomfort is highly valued, the principal punitive responses seem to be more oriented toward shaming the child for letting his tribe, kin group, or immediate family down, bringing disgrace upon himself and them by his conduct. But these are not overused. Instead, the child is given heavy consistent social reinforcement for making the utmost effort to accomplish whatever he sets himself to do, and to reflect pride upon himself and his people. This ideal, too, remains although the tribe and the family may be unable to provide the level and frequency of reinforcement necessary to sustain it in the distant school situation.

It is important to note that in almost all of these situations, the child's frame of reference is not oriented toward some single authoritative adult, who is "in charge" of him, but is diffused throughout the kinship group in which he is reared. While particular adults may be identified as his models for imitation, he is shaped and supported by all members of his social group. He learns to look to peers, siblings and cousins for approval at an age at which his Anglo counterparts are being taught to look to adult authority figures. He learns far more from trial and error, and far less from adult verbal instruction and correction.

Almost without exception, Indian cultures place a very high value upon children as individuals in their own right. As a part of this, parents often do not presume to make decisions for their children. For instance, among the Mississippi Choctaw, when a child is sick the parents frequently will ask him if he wants to see a doctor and

abide by his decision, positive or negative. Only in the case of serious illness are they likely to completely ignore his preference. In the same way they will often not send him to school when he does not want to go; it is up to him to decide.

This respect for individuality, and the sense of personal autonomy which it fosters, is also apparent in the ways in which many Indian children pay selective attention in school. For example, when Head Start first began on one reservation, the children wandered from class to class, to their teachers' dismay, deciding to stay with the class where the activity looked most interesting to them. Had the program been structured (or restructured) along the lines of Open Education the teachers would have been delighted with the children's behavior -- but they insisted in maintaining self-contained classrooms!

This sense of autonomy is most apparent in a common reluctance to order others about. Thus, among many Indian children there is a preference for sports such as basketball, where the group plays as a team and where no one member, such as a quarterback, tells the others what to do. However, football is also a popular game in many BIA and public schools.

One of the more frequent over-generalizations concerning Indian students is that they are "non-competitive", and will do nothing to distinguish themselves from the group. This is not borne out by the behavior of Indian children outside the classroom. While they frequently show exceptional skill at team activities, and appear to prefer team sports and games in the school setting, there are numerous instances of competitive games and contests in which there are individual winners who take great pride in excelling. Some of these activities involve forfeits and prizes of considerable cost or value, on a winner-take-all basis. The western Rodeo, for example, is one such game which is currently and widely popular among Indians, in which individual contestants are fiercely competitive. Pool is another very popular competitive game, with its winners and losers.

One factor that may play a significant part in the apparent "non-competitiveness" of Indian children in the classroom setting is the presence of an outgroup, or outgroup authority figure. It is one thing to out-do a brother in the mutual testing and practice of vital skills and quite another to outdo him in front of strangers who set the task and award the prize, and who often assume that their approval is a prize worth competing for.

Competition in excelling over non-Indians may be an important factor in public schools. In a sense, a group of native peers acquire a diffused sense of accomplishment. In BIA schools intertribal rivalries may play a similar role, with one tribe evaluating itself against the others in terms of academic achievement and other successes.

When the child goes away to school, especially to boarding school, gaps in the traditional modes of education are created. He leaves the framework of extended family relationships which has been his primary reference group for the application of moral and social values, and enters a new and unknown social grouping, an age stratified peer group which often is identified with his own culture, not with that of

the school. But this group no longer includes older and more experienced members to serve as teachers. The child's whole previous training has oriented him to great sensitivity to the group and to its guidance, rather than to subordination to a single adult authority. Some of the problems which these changes precipitate are carefully documented by Phillips (1970), in describing the school children of the Warm Springs Reservation. The most basic difficulty, perhaps, is the child's inability to accept that

> . . . the teacher controls all of the activity taking place in the classroom, and the students (should) accept and are (to be) obedient to her authority . . . (they) consistently show a great deal more interest in what their fellow students are doing than what their teacher is doing . . . Indian students are less willing than non-Indian students to accept the teacher as director and controller of all classroom activities . . .
>
> (They also) show relatively less willingness to perform or participate verbally when they must speak alone in front of other students . . . They are less eager to speak when the point at which speech occurs is dictated by the teacher, as it is during sessions when the teacher is working with the whole class or a small group . . .
>
> . . . where the teacher makes herself available for student initiated communication during sessions at which students are working independently at assignments . . . (they) initiate such relatively private encounters with teachers much more frequently than non-Indian students do.
>
> When students control and direct the interaction in small group projects . . . (they) become most fully involved in what they are doing, concentrating completely on their work until it is completed, talking a great deal to one another within the group, and competing, with explicit remarks to that effect, with the other groups (pp. 82-83).

Dumont (1972) notes similar behavior on the part of Sioux and Cherokee children. He cites the student-controlled silence which governed all teacher-class interchanges, so long as the children considered the structuring of the particular activity threatening to their cultural integrity.

> - - - the silence tells more than any number of words can. It is threatening, frustrating, confusing, rage-filled, and it expresses misunderstanding, compliance, impotence and defeat. The slightest motion, a change in posture or a facial expression are cause for immediate attention, for they mean a shift in the meaning of silence. Every different form it takes is also a different kind of tension, which is never absent but only varies in intensity depending on what (the teacher) does (p. 355).

Yet when the children were involved in tribal-oriented educational activities in tribal buildings rather than at the school house, they were talkative and eager participants who communicated easily and openly with their teachers. The same was true when the school teacher adopted culturally acceptable means for interacting with the children as a group.

When Indian children attend integrated schools, their discomfort often increases, for, as minority children, they are not as well able to manipulate the situation to their liking. One response is to try, at the High School level, to select all the same classes so that they can work together as a group and support one another; also, in this way, they will not feel so shy about speaking up in front of the class when called upon by the teacher.

In a study of Sioux high school students, Bebeau (1969) noted that the Indian children

> - - - tend to sit in the back of the room and function as observers rather than participants - - - As a result, the teachers seem naturally to direct their teaching to those who respond — the non-Indian students in the front of the class (p. 15).

In this way the youngsters try to create the conditions under which they find learning the easiest. That it may not be the most efficient strategy for mastering school subjects under given modes of instruction is of less concern to them than their acute discomfort with the classroom environment.

The more sensitive educators question whether the most appropriate method is to encourage the Indian student to perform to the tune of the authoritarian teacher, or rather to restructure the classroom to create an environment comfortable for the student. Many of the qualities of the students would seem to lend themselves to the open education now being increasingly proposed by educational writers. Indeed, their sense of autonomy and group cohesiveness would seem to indicate that this mode of instruction would be far more successful with them than the more common, teacher-centered modes prevailing

today. Indeed, they may be better suited to this type of instruction than many non-Indians, who must first learn to work independently and in small groups.

Other problems resulting from cultural conflicts within the school setting may not be so easily resolved. For example, the youngsters from the upper elementary grades onward, begin testing their teachers' attitudes toward them almost from the moment the new teacher arrives at the schoolhouse. In the past, a common reaction to perceived disrespect and unconcern was withdrawal. In these days of increasing militancy, aggression toward the disliked teacher is becoming more common.

Phillips notes examples of deliberate refusal to cooperate with the teacher by entire groups from the sixth grade on; peer group approval of bravado has completely overcome any punitive disciplinary control on the part of the authority figure. At this point the teacher or principal is the enemy, to be outwitted or overcome at all costs. He who succeeds at getting away with infractions of the rules is a hero.

R. Wax notes:

> We do not know whether they (especially the star athelete) actually disobey the school regulations as frequently as they claim. But there can be no doubt that most Sioux young men above 12 wish to be regarded as hellions in school. For them, it would be unmanly to have any other attitude (p. 44).

Similar examples could be cited by many administrators of Indian Junior and Senior High Schools. Escapades of this sort are the subject of boasting rather than shame among most students. To say that, "the student does not internalize the moral constraints of society and that he is sensitive only to external coercion" (as is common in a number of psychological studies) is to grossly misinterpret much of this behavior. Rather than being unable to internalize a set of values, the student has internalized another, conflicting value structure, one which is fully supported by his peer group and also often by the traditions of his people. The moral constraints of the school which he violates are irrelevant and the punishment may be endured as a secondary victory of the student's manhood over his enemy's ability to inflict pain.

Similarly, the pattern of running away which occurs in some boarding schools is often misunderstood. The independent action of the child, often decried by school authorities, and which may actually endanger his life, is not out of harmony with his early upbringing and may even be supported by older members of the family when he gets home. It is quite legitimate, in their eyes, for the child to leave a stressful situation, whether at home or in school, and to move in with other members of the extended family until things have straightened out. In the eyes of the family this is merely removing oneself from an uncomfortable situation, a highly desirable behavior. It is only to school authorities that running away means the breaking of rules and

regulations. Subsequent arguments about the consequences of poverty and the other dreadful results of missing school may persuade a truancy student that he should return, but not without considerable ambivalence about what is really best for him to do.

As the child, particularly the male child, reaches the age that used to be devoted to the learning of adult skills in earnest, the economic situations of the various tribes make themselves felt in his training. There are only a few places in which there is sufficient economic base to maintain traditional nonindustrialized male roles (such as hunting, fishing, farming, animal husbandry, artisanry, curing, etc.) and an opportunity for the boy to learn in the traditional way. But even here, attendance at school reduces the time available for this type of training, and frequently prevents full participation except during school vacations. And even where it is possible to maintain a family from such pursuits, the financial remuneration is often quite marginal.

While the boy does have open to him other, non-remunerative traditional roles, in the political and religious life of the tribe, he generally finds that he must seek elsewhere if he is to fulfill the traditional value of being able to maintain a family. Here his older relatives can give him little guidance; indeed, they may have little understanding of his life as a schoolboy, especially if he attends a boarding school. Unable to find guidance from his elders, he turns to his peers, youngsters in the same predicament, for help.

Girls are not as drastically affected, since much of the woman's traditional role is played out in the home. But as more and more women take on outside jobs, girls, too, find that they must look to one another for guidance.

One of the primary goals of Indian schooling has, in the past, been the acculturation of the children to white ways. While this goal is no longer given the same prominence as before, all school programs (including those of community controlled schools) do stress the preparation of the children for success in the outside world. How do the children react to such goals? Many reject them. For example, Saxon (1972) found that eleventh and twelfth graders at the Albuquerque Indian School did not identify with the Anglo school and police figures she presented to them, although they did not reject a TV actor; neither did they reject figures from their own cultures. She recommends added efforts to make the outside society more attractive to Indian students as a means for motivating them to greater academic efforts. Such recommendations, if implemented, while well meaning, may serve merely to further alienate the student from his home and community and ultimately from his teachers and himself.

Many acculturated Indians, including some of the most successful in the white world, as well as those who have maintained traditional life styles, sometimes question the desirability of any acculturation; the pain and loss involved may far outweigh any gains.

On a theoretical level, Simirenko (1966) has suggested that

> Individuals willing to undergo acculturation are rewarded with considerably better economic position at the expense of their status. If they value their status within the community they are likely to resist acculturation and for this action be rewarded with higher status or power position within the family (pp. 14-15).

Gabarino (1970) clearly illustrates this in the case of a Seminole woman, who suffered identity loss, loneliness, and inability to exercise any leadership after moving back to her home after success in the outside world. On the other hand it is possible in many other tribes to obtain a higher education and at the same time maintain strong ties with the natal community. This is true whether one eventually follows his career in the natal or in an urban community. It requires a segmentalization of roles and a truly bicultural existence.

Many Indian parents express a sense of frustration and disillusionment with their children's education once they return home from school and try to take their places in the community again. Often they have not been able to present viable role models to their children; more often they have not known what kind of models to present. Role models at schools have been equally meaningless. At the same time, many have fervently believed that their children's attendance at school will guarantee them the learning necessary for economic success. They equate school attendance with learning, but are soon disillusioned, as they see their youngsters repeat their own failures as earners and also fail in most other aspects of successful reservation life. This problem is particularly acute for boys, who are particularly ill-prepared to assume the responsibilities of reservation life. They have taken on many of the superficial values of dress, taste, and consumerism of the white world; values which appear extravagant and irresponsible in their conservative communities. To their parents it seems like ". . . all they want to do is ride around and drink and spend money and talk big and get into trouble . . .", while they feel that life at home is backward and dull, but may be all there is for them in life unless they can "make it" on the outside. By now, neither they nor their parents are convinced that schooling, as they have experienced it, opens the golden door to opportunity. Many also question the quality of schooling.

We suggest an alternative goal for Indian education, that of biculturism. By this we do not mean so much the person's ability to move between two cultural worlds, appearing to fit well into each. Rather we mean that the person, being familiar with both, can select the traits he considers desirable from each and combine them into one integrated approach to the world. In this way biculturalism need not cause the psychic disequilibrium suffered by almost all acculturating persons.

The Indian community is most often concerned with transmitting to its young, not a ready-made way of life, but rather the values which

have been embodied in the lives of past generations. The concern is for the strength, vitality and independence of the young, not with merely preserving former ways of living.

It is not characteristic of most native Americans to impose a system on the young. It is characteristic to give them plenty of room in which to develop their own lives, and to hold before them the values, beliefs, and ideas of their elders. Though rarely expressed in verbal abstractions, these ideals center upon close, supportive, respectful and courteous kinship relationships; a sense of independence and responsibility for one's own life; pride in one's person, family and tribe; love of beauty and strength, generosity toward others; respect for the natural world; and courage, self-discipline, and endurance in the face of hardship.

None of these is disfunctional in the white world. We suggest that they be honored by the schools at the same time that youngsters are given the skills necessary for success in the white world, so that they will be equipped should they choose to live there and that they be helped to critically evaluate the strengths and weaknesses of both worlds, so as to adopt that which most appeals to them.

Although preliminary steps have been taken in this direction (as, for example, a Navajo unit which related the basic construction principles inherent in both Hogan and modern building methods to one another), this might well entail major revamping of present curricula. Another step would be to encourage Indian youngsters to investigate a great variety of occupational roles so as to better choose the ones which most appeal to them. In this way they might be better helped to integrate elements of the white and Indian worlds and to seek a new and more satisfying (to them) accommodation to both.

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